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DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF EDUCATION

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BIENNIAL SURVEY OF EDUCATION

1916-18

IN FOUR VOLUMES

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C O N T E N T S .

	<i>Page.</i>
Chapter I.—A survey of higher education—By Samuel P. Capen and Walton C. John.....	5
Chapter II.—Medical education—By N. P. Colwell, M. D.....	71
Chapter III.—Engineering education—By F. L. Bishop.....	97
Chapter IV.—Commercial education—By Frank V. Thompson.....	105
Chapter V.—Public education in the cities of the United States.....	115
The larger cities—By J. H. Van Sickle and John Whyte.....	115
The smaller cities—By W. S. Deffenbaugh.....	125
Chapter VI.—Rural education—By H. W. Foght.....	159
Chapter VII.—Secondary education—By Thomas H. Briggs.....	185
Chapter VIII.—Instruction in art—By Walter Sargent.....	227
Chapter IX.—Instruction in music—By Waldo S. Pratt.....	257
Chapter X.—Vocational education—By William T. Bawden.....	269
Chapter XI.—Agricultural education—By C. H. Lane.....	297
Chapter XII.—The United States School Garden Army—By J. H. Francis.....	335
Chapter XIII.—Kindergarten education—By Almira M. Winchester.....	339
Chapter XIV.—Home economics—By Mrs. Henrietta W. Calvin and Carrie A. Lyford.....	355
Chapter XV.—Home education—By Ellen C. Lombard.....	391
Chapter XVI.—Educational hygiene—By Willard S. Small.....	403
Chapter XVII.—Recent progress in Negro education—By Thomas Jesse Jones.....	423
Chapter XVIII.—Educational surveys—By Edward Franklin Buchner.....	437
Chapter XIX.—Review of educational legislation, 1917 and 1918—By William R. Hood.....	491
Chapter XX.—Library activities, 1916-1918.....	527
Chapter XXI.—Educational work of the churches.....	553
Chapter XXII.—Educational work of the Young Men's Christian Associations—By William Orr.....	605
Chapter XXIII.—Educational work of the Boy Scouts—By Lorne W. Barclay.....	663
Chapter XXIV.—Girl Scouts as an educational force—By Juliette Low.....	677
Chapter XXV.—Education in the Territories and dependencies.....	683
Education in Porto Rico—By Paul G. Miller.....	683
Education in the Canal Zone—From report of A. R. Lang.....	708
The Virgin Islands—From report of the school director.....	711
Hawaii—By Henry W. Kinney.....	712
The Philippine public-school system—By W. W. Marquardt.....	718
Education in Alaska.....	733
INDEX.....	759

CHAPTER I.

A SURVEY OF HIGHER EDUCATION.

By SAMUEL P. CAPEN AND WALTON C. JOHN.

CONTENTS.—Part I. Higher education in the period preceding the war: Standardizing agencies—The junior college—Fifty years of the land-grant colleges—A new association, the American Association of University Instructors in Accounting—University surveys and the survey movement—The Supreme Court of Massachusetts sets aside the Harvard-Technology agreement—The Rhodes scholarships—The Carnegie pension and insurance schemes—Academic freedom of speech—Two State institutions attacked—Special legislation touching higher education—Americanization. Part II. The colleges and the war: Problems raised by the war—Training and the effective organization of training agencies for national service—University committee of the advisory commission of the Council of National Defense—Independent action by colleges in preparation for war service—Students and the draft—Further efforts to secure Federal direction of civilian training agencies—Committee on the relation of engineering schools to the Government—Emergency (American) Council on Education—Committee on education and special training of the War Department.

HIGHER EDUCATION IN THE PERIOD PRECEDING THE WAR.

PART I.

The year 1916-17 undoubtedly marks the close of an important epoch in the history of higher education in the United States. It is impossible to foretell as yet what changes will be wrought in the purposes, methods, and control of higher institutions by the war. But the events mentioned in the closing sections in this review have so completely interrupted the old order, have to such an extent broken up the mold of academic thought, that the calm resumption of the processes and ideas of the past decade is unthinkable. It may therefore be worth while to consider very briefly what have been the main tendencies and achievements in the field of higher education during the past 25 years.

Since the last decade of the nineteenth century there has been no considerable increase in the number of collegiate institutions. Twenty-five years ago there were 594 colleges and universities. In the current Report of the Commissioner of Education there are listed 574 colleges, universities, and technological schools, and 85 independent junior colleges, a total of 662 institutions which report giving instruction above high-school grade. The slight increase in the total number of higher institutions is due to the recent multiplication of junior colleges. There has, in fact, been a decrease in colleges of the older type since 1893. As the benefactions to higher education have been more numerous and substantial in the last 25 years than

ever before, it would appear that there are approximately foundations enough to provide higher educational facilities for those that need and desire them. The distribution of collegiate institutions is, however, very uneven. The East and Middle West are well supplied. The States west of the Mississippi River, on the other hand, exhibit an irregular scattering of higher institutions which, unfortunately, in many regions bears little relation to the distribution of the population to be served. It may be a safe prediction that new foundations of regular collegiate institutions, if deemed necessary at all, are more likely to be made in this region than in the other sections of the country.

In general, the need of the Nation is not so much to increase the number of higher educational institutions as to improve the quality of many of them. There is still a vast difference, as has been implied in previous reports, between what is understood as collegiate and university training in the more favored communities and what goes under the same name in communities served by ill-equipped, under-staffed institutions.

The remarkable growth in the wealth and material equipment of a considerable percentage of higher institutions emphasizes this discrepancy in quality. The excellence of higher education does not depend on money alone. Nevertheless, the possession of certain material resources makes it easier for an institution to attain excellence. The well-endowed private colleges and the liberally supported State institutions have therefore set a pace in improving educational standards which less fortunate institutions have found it difficult or impossible to follow. The remarkable expansion of higher education on the material side is indicated by the amounts spent for it 25 years ago and in the year just preceding the war. In 1893 the national expenditure for higher education was \$22,944,776 and in 1916, \$110,532,396. The increase in the number of persons served during the same period is almost equally striking. In 1893 the total collegiate enrollment in the United States was 110,545, in 1916 it was 329,387. It is clear, then, that although the number of higher institutions has not increased very much, there has been a large increase in the amount of higher education provided.

This increase in the amount of higher education corresponds, of course, to an increasing demand for it. Indeed, one of the most patent tendencies of the last quarter of a century has been the democratization of college education. Twenty-five years ago it was regarded as the privilege of the select few, the selection not being made, however, wholly on the basis of wealth or any other artificial class distinctions. The combined pressure of State institutions, large philanthropic enterprises, and the propaganda of leading educational

writers led to the gradual spread of the belief that not only should college education be open to everybody, but that nearly everybody should have it. A certain reaction is to be noted in very recent years from this extreme position. The experiences of higher institutions with large numbers of persons of innate mental limitations has led to the growing conviction among university and college officers that, after all, higher education is for the few and not for the many. But the few must be selected by methods more liberal and democratic than any which have yet been devised.

Coincident with the tendency mentioned in the last paragraph has been the expansion and liberalization of the college curriculum. A quarter of a century ago there was practically but one curriculum for colleges of arts and sciences. Already, however, the virus of the elective system, as put into practice by Harvard, was making itself felt. By the end of another 10 years it had swept the United States, and the reaction against it in its extreme form had begun to set in. Having been freed through the elective system from the shackles of an antiquated and outworn scheme of studies, institutions now began to grope for some new unifying principle to guard against the dangers of intellectual license which appeared in the general working out of the elective system. The new mechanism is the group system. Under various manifestations this principle of curriculum formation has been generally adopted in the public and nonsectarian institutions of the country. Certain colleges and universities under denominational auspices retain in substance the formal curriculum of the late nineteenth century.

The liberalization of college curricula has gone hand in hand with a closer articulation between colleges and secondary schools. In fact, the problem of perfecting this articulation has occupied perhaps an undue amount of the attention of associations of both college and school officers during the past quarter of a century. On the one hand, the schools, responding to a vigorous popular pressure, have asserted their right to an independent development, free from the domination of higher institutions. On the other, the colleges, yielding to the new doctrine of the extension of higher education (and to the ever-present urge for numbers), have abated the rigid prescriptions of subjects which were common 25 years ago. The decline of the entrance examination and the development of accrediting systems are complementary movements during this period. The present extent of coordination between the colleges and secondary schools is indicated in this review (see p. 9).

Foremost in this movement have been naturally the State-supported higher institutions. These, which were conceived as the apex of the school systems of their respective States, have won their way to a degree of influence and popularity which could not have been

foreseen 25 years ago. Indeed, the enormous expansion of State universities and State colleges of agriculture and mechanic arts is one of the outstanding features of the recent history of higher education in this country.

The variation in the excellence of the work done by different types of higher institutions has already been alluded to. With the growth in the number of persons availing themselves of higher educational opportunities, and the increasing mobility of the population of the United States, colleges have been brought into ever-closer and more frequent comparisons with one another. Migrations of students from one institution to another have become more and more common. Larger numbers have gone forward every year from the baccalaureate course to professional and graduate study. The discrepancies in standards, therefore, become painfully apparent. One of the most important tendencies of the last 15 years has been the tendency toward standardization of higher institutions. (This carries with it also a certain amount of standardization of secondary schools.) A large number of agencies have first and last engaged in this work. Associations of higher institutions, both regional and national, independent educational foundations, church boards, and several governmental offices have all played a part. If it were possible to measure higher education or the efficiency of institutions by purely objective criteria applied to the institution and not to its product, one might regard the problem of standardization as solved. Nearly all of the agencies just referred to have elaborated and defined such quantitative measurements as may be applied to an organization which after all eludes the most precise measuring stick. While undoubtedly much good has been accomplished by the activities of standardizing agencies, it is only just to record that there has been also a certain amount of damage. The American educational public has come to think too largely in terms of credits, counts, or material equipment. Confirmation of this statement appears in the evidence recorded in the last five Reports of the Commissioner of Education, and in the proceedings of nearly every sectional and national educational association. Fortunately the reaction against the tendency to estimate all education in quantitative terms has already set in. It should be accelerated by the educational experiences of the war.

Later in the report mention is made of the extraordinary growth of land-grant colleges and the development of university courses in applied science. No doubt the foreign observer would find this phase of our recent educational history the most impressive of all. The relative strength of the liberal college has declined in favor of the vocational higher institution. Colleges and universities not under State control, and primarily founded for the purpose of provid-

ing education in the liberal arts, have been forced by public demand to add numerous professional curricula, such as commerce, journalism, business administration, and the several varieties of engineering. But in this great movement the land-grant colleges and the State universities have been the leaders.

STANDARDIZING AGENCIES.

NON-STATE ACCREDITING AND EXAMINING BOARDS.

Perhaps no question has occupied the time of college and high-school officers more than the administration of college entrance requirements. The organizations charged with the responsibility of controlling entrance examinations have increased in number till they now influence nearly every secondary school of significance in the United States. A numerical summary of the extent of this activity is given in the following paragraphs.

THE NEW ENGLAND COLLEGE ENTRANCE CERTIFICATE BOARD.

The sixteenth annual report of the New England College Entrance Certificate Board states that—

the total number of schools that had the certificate privilege last year from the board is 543, of which 81 had the specimen certificate privilege. Four hundred and fifteen of these (about 76 per cent, as against 84 per cent last year) sent one or more pupils on certificate to the colleges represented on the board. At the present time there are 47 schools on the trial list, 429 on the fully approved list, making a total of 476. To these may be added 74 schools that had the right of sending special students on certificate, making a grand total of 550 schools that have the certificate privilege of the board for the coming year.

The following institutions comprise the membership of the New England College Entrance Certificate Board: Amherst College, Bates College, Boston University, Bowdoin University, Brown University, Colby College, Massachusetts Agricultural College, Middlebury College, Mount Holyoke College, Smith College, Tufts College, University of Vermont, Wellesley College, Wesleyan University, Williams College.

THE COLLEGE ENTRANCE EXAMINATION BOARD.

The College Entrance Examination Board examined 9,265 candidates during the year 1916-17. According to the secretary's report, 988 schools sent candidates to the board's examinations. Of these, 525 were public schools and 463 private schools, sending 2,823 and 6,071 candidates, respectively. In addition there were 371 candidates who were conditioned college students or were prepared by private tutors or were self-prepared or neglected to state how they received their preparation. The public schools sent to the examination 961 fewer candidates than last year, the loss in boys being 792 and in

girls 169. From the private schools there was a loss of 403 boys which was offset in part by a gain of 113 girls. The total number of boys taking the board's examinations in 1918 was less than last year by 1,338.

INCREASING RECOGNITION OF THE COMPREHENSIVE EXAMINATION PLAN.

"Notwithstanding the fact that the number of candidates taking the board's examinations was less this year than last, the number of candidates presenting themselves under the new plan of admission increased from 495 to 580." In 1918 this number has increased to 752.

Under this plan the certificate and examination methods of admission are combined. The candidate presents a certificate from the secondary school testifying to the quantity of work covered. The college takes a sample of the quality by examining him in four subjects. The examination is designed to test the candidate's general knowledge of a given subject and his intellectual power, not to ascertain whether he has mastered a prescribed book or course.

THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

The North Central Association of Colleges and Secondary Schools at the meeting of March 23-24, 1917, reported 108 colleges, 51 institutions primarily for the training of teachers, and 8 junior colleges on its list of accredited higher institutions. Altogether, 1,225 schools reported, of which 1,164 were finally accredited; 913 were accredited unqualifiedly, 215 were accredited with warning, 39 of the old schools were dropped, and 75 new schools were added.

THE ASSOCIATION OF COLLEGES AND PREPARATORY SCHOOLS OF THE MIDDLE STATES AND MARYLAND.

The Association of Colleges and Preparatory Schools of the Middle States and Maryland reported for 1917 a membership of 68 universities and colleges and 154 secondary schools.

THE ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES.

The Association of Colleges and Secondary Schools of the Southern States reported for 1917 a membership of 42 universities and colleges and 47 secondary schools.

Taken altogether, the foregoing reports show for the year 1917 the number of 2,896 public and private secondary schools which are directly affiliated with one or more of these six accrediting or examining organizations.

STATE ACCREDITED SECONDARY SCHOOLS.

The following table shows, for the year 1916, 8,075 secondary schools on the accredited lists of State boards of education or State

universities, or both. As the total number of public and private high schools reported for 1916 is about 14,000, it is of interest to observe that at least 58 per cent of the high schools are connected with a State standardizing or accrediting agency.

Summary of State accredited secondary schools in the United States, 1916.

[The cross (X) means yes.]

States.	Accredited secondary schools.	Accredited by State board.	Accredited by State university.	Units required by—	Observations.	
					State board.	State university.
Alabama.....	121	X	X	14		
Arizona.....	44	X	X	15		23 by State board and 21 by State university.
Arkansas.....	82	X	X	14		
California.....	278		X	15		In 1914-15.
Colorado.....	73		X	15		In 1915-16.
Connecticut.....	64	X				Units not specified.
Delaware.....	11	X	X			State university accredits 10 only. Units not specified.
District of Columbia.....	11					Accredited by standard university. Units not specified.
Florida.....	50	X	X	16		
Georgia.....	97		X	15	14	59 institutions with 15 units; 38 with 14 units.
Idaho.....	75		X	15		
Illinois.....	462	X	X	15		385 by State university; 77 by State department.
Indiana.....	431	X	X	16		
Iowa.....	351	X	X	15		
Kansas.....	385	X	X	15		99 class A; 79 class B I; 108 class B II; 86 class B III; 13 unclassified.
Kentucky.....	191		X	15		98 class A; 95 class B.
Louisiana.....	160	X	X	14		18 of the 160 belong to supplementary lists of State universities.
Maine.....	199	X			14	
Maryland.....	61	X			14	35 first group; 26 second group.
Massachusetts.....	76	X			15	
Michigan.....	269		X	15		
Minnesota.....	261	X	X	15		
Mississippi.....	144		X	14		Affiliated with the State university.
Missouri.....	239	X	X	15		
Montana.....	73	X	X	15		
Nebraska.....	267		X	15		104 group A; 141 group B; 22 group C.
Nevada.....	17		X	15		
New Hampshire.....	79	X			14	
New Jersey.....	183	X				Four full years required.
New Mexico.....	35	X	X	15	14	19 approved by University of New Mexico; 16 approved by State department.
New York.....	714	X				Units not expressed.
North Carolina.....	44		X		14	
North Dakota.....	53	X	X	15		
Ohio.....	606	X	X	15		First grade secondary schools.
Oklahoma.....	22	X	X	15		
Oregon.....	74	X	X	15		
Pennsylvania.....	333	X				Units not stated.
Rhode Island.....	20	X			15	
South Carolina.....	29		X			
South Dakota.....	78	X	X			
Tennessee.....	117		X		14	Schools fully accredited.
Texas.....	307	X	X		14	144 group 1 of State universities; 193 on State department lists, besides State universities.
Utah.....	31	X	X	15		
Vermont.....	79	X				Units not given.
Virginia.....	176	X	X	14		
Washington.....	164	X	X	15		
West Virginia.....	92	X	X	15		
Wisconsin.....	319		X	14		First class secondary schools.
Wyoming.....	28		X	15		
Total.....	8,075					

RECENT ATTEMPTS OF NATIONAL AND REGIONAL ASSOCIATIONS AT COLLEGIATE STANDARDIZATION.

Several influential associations of higher institutions have in the past two years added to the already numerous definitions of the standard college and of the junior college. The following are probably the most significant of these efforts.

THE ASSOCIATION OF AMERICAN COLLEGES.

The Association of American Colleges has published a study by Dr. Calvin H. French which in substance establishes three grades of standard colleges. Dr. French designates these as the minimum college, the average college, and the efficient college. The pith of this interesting report is given here:

Comparative table showing the minimum, the average, and the efficient college.

Items compared.	The minimum college, based on 45 typical institutions.	The average college, based on 16 typical institutions.	The efficient college.
Total units required for entrance.....	15	15	15
Total hours required for graduation.....	60	60	60
Number of instructors, excluding president and library officials.....	8	14	46
Teaching hours per week (approximate).....	15	15	15
Enrollment.....	100	165	500
Cost of administration.....	\$7,325	\$8,358	\$18,650
Cost of instruction.....	12,000	16,941	99,000
Cost of maintenance.....	12,675	12,941	49,100
Total cost.....	32,000	36,214	166,750
Average salaries of all instructors.....	1,500	1,210	2,150
Salary of president.....	2,500	2,500	5,000
Average value of plant.....	350,000	236,877	985,000
Average value of endowment.....	432,000	455,010	2,215,000
Total assets.....	782,000	691,887	3,200,000

According to Dr. French, we mean by college efficiency that "all the forces of the institution are working adequately and with the least possible waste to accomplish its chief ends." Can this be done when the library and laboratories are inadequately equipped and supported, or its teachers underpaid and overloaded with work? These are prevalent conditions in many splendid colleges which, however, are not efficient colleges. The following digest gives a summarized statement of the financial needs of standard colleges with from 200 up to 1,000 students:

A standard college of 200 students is one that has a faculty of 21, giving it the equivalent of 17 full-time teachers and 4 full-time administrative officers; an income of \$10,800 from tuitions, \$1,000 from other fees, \$7,000 from room rents or other sources, and \$38,700 from endowment; an expenditure of \$27,500 for instruction, \$10,000 for administration, and \$20,000 for maintenance;

a productive endowment of \$774,000 and a plant worth \$500,000, making a total property of \$1,274,000.

A standard college of 300 students should have a faculty of 31, giving it the equivalent of 26 full-time teachers and 5 full-time administrative officers; an income of \$20,250 for tuitions, \$1,500 from other fees, \$10,500 from room rents or other sources, and \$58,250 from endowment; an expenditure of \$45,000 for instruction, \$15,000 for administration, and \$30,000 for maintenance; a productive endowment of \$1,165,000 and a plant worth \$750,000, making a total property of \$1,915,000.

The standard college of 500 students calls for a faculty of 51, yielding the equivalent of 44 full-time teachers and 7 full-time administrative officers; an income of \$45,000 from tuitions, \$2,500 from other fees, \$17,500 from room rents or other sources, and \$111,000 from endowment; an expenditure of \$99,000 for instruction, \$27,000 for administration and \$50,000 for maintenance; a productive endowment of \$2,220,000 and a plant worth \$1,000,000, making a total property of \$3,220,000.

Standard colleges of 750 students will have, on these estimates, a faculty of 74, yielding the equivalent of 64 full-time teachers and 10 full-time administrative officers; an income of \$67,500 from tuitions, \$3,250 from other fees, \$26,250 from room rents or other sources, and \$197,000 from endowment; an expenditure of \$174,000 for instruction, \$40,000 for administration, and \$80,000 for maintenance; a productive endowment of \$3,940,000 and a plant worth \$1,750,000, making a total property of \$5,690,000.

The standard college of 1,000 students requires a faculty of 97, yielding the equivalent of 85 full-time teachers and 12 full-time administrative officers; an income of \$90,000 from tuitions, \$5,000 from other fees, \$35,000 from room rents or other sources, and \$321,500 from endowment; an expenditure of \$262,500 for instruction, \$60,000 for administration, and \$120,000 for maintenance; a productive endowment of \$6,250,000 and a plant worth \$2,400,000, making a total property of \$8,650,000.

From the standpoint of a study of 52 colleges and universities, Dr. French has decided that 55 per cent of the income should go to instruction, 30 per cent to maintenance, and 15 per cent to administration. Only 20 per cent of the income should be obtained from the students; the remaining 80 per cent should come from endowments.

THE ASSOCIATION OF AMERICAN UNIVERSITIES.

For nearly 20 years the Association of American Universities has considered problems relating to graduate study. Among these problems is that of the proper classification of universities and colleges with respect to their qualifications for preparing candidates for graduate work. At the last meeting of the association held at the State University of Iowa, November 9 and 10, 1917, the committee on classification of universities and colleges presented the following report:

The Association of American Universities approves the following revision of the list of universities and colleges accepted in 1918. It recognizes the institu-

tions in this undifferentiated list as falling within the three groups described by the association in 1914 in the following terms:

GROUP A. Institutions whose graduates should ordinarily be admitted to the graduate schools of this association for work in lines for which they have had adequate undergraduate preparation, with a reasonable presumption that advanced degrees may be taken with the minimum amount of prescribed work and in the minimum time prescribed. Students who choose work in lines for which their undergraduate course has not prepared them adequately must expect to take more time and do additional work.

GROUP B. Institutions from which only those graduates of high standing in their classes who are individually recommended by the department of undergraduate instruction corresponding to that in which they purpose to do their graduate work may be admitted on the same basis as graduates from institutions in Group A.

GROUP C. Other institutions whose graduates should be admitted to graduate schools, but with the presumption that more than the minimum time and minimum amount of work will be ordinarily required for an advanced degree.

Graduates of these institutions (in the case of newer and smaller institutions the graduates of recent classes) presumably will be eligible for admission, with the limitations and reservations stated above to graduate citizenship or status, but without commitment as to the equivalency of the bachelor's degree of an individual student with that of the university admitting him, and without commitment as to the time which will be required by such students to secure an advanced degree.

DEFINITION OF EDUCATIONAL TERMS.

A subcommittee of the National Conference Committee on Standards of Colleges and Secondary Schools, appointed some years ago at the suggestion of Commissioner Claxton, presented on March 1, 1918, a report making certain recommendations which, after modification, were adopted, as follows:

The term "department" is restricted to the various subjects taught; as, for instance, department of Latin, mathematics, of physics, etc.

The term "course" is restricted to the instructional subdivisions of a subject; as, for instance, Course I in English.

The term "group" is restricted to a combination of subjects related in content or method; as, for instance, the group of classical languages, of the biological sciences, etc.

The term "curriculum" is restricted to a combination of courses leading to a certificate, a diploma, or a degree.

The term "division" is restricted to the larger administrative units of a college or university; as, for instance, the extension division, the division of agriculture, the division of arts and sciences.

The term "school," as applied to part of a university, is restricted to that part the standard of admission to which is not less than the equivalent of two years' work in the college, and which offers instruction of not less than two years' duration, leading to a technical or professional degree.

After a long discussion as to the definition of "college," it was voted to print the following provisional definition for criticism and further discussion, action to be taken by the committee next year:

A "college" is an institution requiring for admission graduation from a standard secondary school, or the equivalent, and offering a four-year curriculum leading to the first degree in arts or science, of such character as to qualify for admission to a graduate school of recognized standing.

Such an institution is indicated by the following characteristics:

A minimum requirement for admission of 15 units of secondary work, not more than 2 units of conditions being allowed, all special students under 21 years of age being required to meet all of the usual requirements for admission, preparatory courses, if any, being distinct in faculty, students, and discipline.

A program of studies having a reasonable relation to the resources of the institution.

A curriculum of 4 years of at least 32 weeks each of actual instruction.

Not less than eight departments, each having at least one full-time professor.

A staff, two-thirds of which are of professorial rank, having had at least 4 years of study in a graduate school of good standing, receiving salaries of approximately \$2,000 a year, and teaching not more than 16 hours a week.

A minimum productive endowment, beyond all indebtedness, of at least \$250,000.

An annual income of at least \$40,000 a year, at least half of which is expended for instruction.

An expenditure of at least \$1,000 a year for laboratory equipment and apparatus, and of at least \$500 a year for books and periodicals.

An annual or biennial published report of assets, income, expenditure, faculty, curricula, and student body.

THE NORTH CENTRAL ASSOCIATION REPORT ON STANDARDS OF ACCREDITING COLLEGES AND UNIVERSITIES.

The North Central Association at the meeting of March 21, 1918, withdrew its membership from the National Conference Committee, and at the same time adopted a separate report embodying standards for accrediting American colleges and universities. The standards given herewith involve the definition of the "standard American college," a definition which differs in many respects from that adopted provisionally by the National Conference Committee:

The "standard American college" is a college with a four-year curriculum, with a tendency to differentiate its parts in such a way that the first two years are a continuation of, and a supplement to, the work of the secondary instruction as given in the high school, while the last two years are shaped more or less distinctly in the direction of special, professional, or university instruction.

The following constitute the standards for accrediting colleges for the present year (1918) :

1. The minimum scholastic requirement of all college teachers shall be equivalent to graduation from a college belonging to this association, and graduate work equal at least to that required for a master's degree. Graduate study and training in research equivalent to that required for the Ph. D. degree are urgently recommended, but the teacher's success is to be determined by the efficiency of his teaching as well as by his research work.

2. The college shall require for admission not less than 14 secondary units, as defined by this association.

3. The college shall require not less than 120 semester hours for graduation.

4. The college shall be provided with library and laboratory equipment sufficient to develop fully and illustrate each course announced.

5. The college, if a corporate institution, shall possess a productive endowment of not less than \$200,000.

6. The college, if a tax-supported institution, shall receive an annual income of not less than \$50,000.
 7. The college shall maintain at least eight distinct departments in liberal arts, each with at least one professor giving full time to the college work in that department.
 8. The location and construction of the buildings, the lighting, heating, and ventilation of the rooms, the nature of the laboratories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both students and teachers.
 9. The number of hours of work given by each teacher will vary in the different departments. To determine this, the amount of preparation required for the class and the time needed for study to keep abreast of the subject, together with the number of students, must be taken into account; but in no case shall more than 18 hours per week be required, 15 being recommended as a maximum.
 10. The college must be able to prepare its graduates to enter recognized graduate schools as candidates for advanced degrees.
 11. The college should limit the number of students in a recitation or laboratory class to 30.
 12. The character of the curriculum, the efficiency of instruction, the scientific spirit, the standard for regular degrees, the conservatism in granting honorary degrees, and the tone of the institution shall also be factors in determining eligibility.
 13. No institution shall be admitted to the approved list unless it has a total registration of at least 50 students if it reports itself a junior college and of at least 100 students if it carries courses beyond junior college.
 14. When an institution has, in addition to the college of liberal arts, professional or technical schools or departments, the college of liberal arts shall not be accepted for the approved list of the association unless the professional or technical departments are of an acceptable grade.
- No institution shall be accredited or retained on the accredited list, unless a regular blank has been filed with the commission, and is filed triennially, unless the inspectors have waived the presentation of the triennial blank.

THE JUNIOR COLLEGE.

Three types of junior colleges have recently evolved in this country. The first type, exemplified in the junior colleges of California, is an integral part of the State educational system. The establishment of junior colleges in connection with the city school system tends to keep at home in the local junior colleges large numbers of freshmen and sophomores who otherwise would overcrowd the large universities and make difficult the prosecution of advanced collegiate and university work. The desire to relieve the expensive university plants from the pressure of an undue number of immature students has been an influential factor in the spread of junior colleges of this type.

The second type is found in Missouri and in the South and Southwestern States. These junior colleges are largely the result of the contraction of small denominational colleges whose degrees and

equipment failed to meet the high standards of the leading State universities of those regions.

The third type of junior college has recently appeared in Wisconsin, the State legislature having granted the State normal schools the privilege of reorganizing their work on the junior college plan.

DISTRIBUTION OF JUNIOR COLLEGES IN THE UNITED STATES.

The following table gives the number and distribution by States of the independent junior colleges:

TABLE 1.—*Number and distribution of junior colleges.¹*

Junior colleges.	Junior colleges.
California.....	15
Missouri.....	13
Virginia.....	10
Texas.....	10
Illinois.....	8
Kentucky.....	4
Georgia.....	3
North Carolina.....	3
Tennessee.....	3
Alabama.....	2
Michigan.....	2
Minnesota.....	2
West Virginia.....	2
Idaho.....	1
Iowa.....	1
Kansas.....	1
Louisiana.....	1
Oregon.....	1
Washington.....	1
Total.....	85

¹ Not including the normal schools of Wisconsin.

STANDARDS OF ACCREDITING JUNIOR COLLEGES.

The growth of the junior college in its varied forms has called for the adoption of certain standards applicable to these institutions. With this in mind the North Central Association of Colleges and Secondary Schools, at its 1918 meeting, adopted the following standards of accrediting junior colleges:

A "standard junior college" is an institution with a curriculum covering two years of collegiate work (at least 60 semester hours, or the equivalent in year, or term, or quarter credits), which is based upon and continues or supplements the work of secondary instruction as given in an accredited four-year high school. A semester hour is defined as one period of classroom work in lecture or recitation extending through not less than 50 minutes net or their equivalent per week for a period of 18 weeks, two periods of laboratory work being counted as the equivalent of one hour of lecture or recitation.

1. The minimum scholastic requirements of all teachers of classes in the junior college shall be graduation from a college belonging to this association, or an equivalent, and in addition, graduate work in a university of recognized standing amounting to one year.

2. The junior college shall require for registration as a junior-college student the completion by the student of at least 14 units of high-school work as defined by this association.

3. The work of the junior college must be organized on a collegiate as distinguished from a high-school basis.

4. The teaching schedule of instructors teaching junior-college classes shall be limited to 22 hours per week; for instructors devoting their whole time to junior-college classes 18 hours shall be a maximum; 15 hours is recommended as the maximum.

5. The limit of the number of students in a recitation or laboratory class in a junior college shall be 30.

6. Students registered in a junior college who are permitted to enroll in regular high-school classes shall not be given full junior-college credit for such work, and in no case shall the credit thus given exceed two-thirds of the usual high-school credit. No junior college will be accredited unless it has a registration of 25 students if it offers but a single year, and 50 students if it offers more than a single year.

7. The junior college shall have library and laboratory facilities sufficient to carry on its work the same as it would be carried on in the first two years of an accredited standard college.

FIFTY YEARS OF THE LAND-GRANT COLLEGES.

Perhaps no institutions have grown more rapidly in power and in the public favor than the land-grant colleges. These institutions distinctly belong to the State, at the same time they are the only group of institutions with Federal affiliations. Because of this dual attachment they have played an increasingly important part in developing not only our great national resources but also a true national spirit. The important place which the applied sciences now hold in modern university curricula is in a large measure due to the progressive educational policies of the land-grant colleges. Every State in the Union, including the Territories of Hawaii and Port Rico, has one or more institutions receiving the benefits of the Federal land-grant college funds. Alaska is the only Territory which has not established a college of agriculture and mechanic arts, although it has recently accepted the offer of Federal support. Of the 68 land-grant institutions, 51 are for whites and 17 for negroes. The following comparative tables show the general status of these institutions from the standpoints of attendance, teaching force, and income:

Comparative statistical table of land-grant colleges at the close of nearly 50 years of existence.

ENROLLMENT.

Average number of white students :	Average number of all land-grant college students :
In 1918-1915-----	110,854
In 1915-1917-----	120,969
Increase-----	10,615
Per cent of increase-----	9.8
Average number of colored students :	
In 1918-1915-----	9,710
In 1915-1917-----	10,982
Increase-----	1,272
Per cent of increase-----	13
	In 1918-1915----- 120,064
	In 1915-1917----- 131,952
	Increase----- 11,888
	Per cent of increase----- 9.9

Comparative statistical table of land-grant colleges at the close of nearly 50 years of existence—Continued.

NUMBER OF TEACHERS.

Average number of white teachers:		Average number of all land-grant college teachers:	
In 1913-1915-----	9,380	In 1913-1915-----	9,900
In 1915-1917-----	9,885	In 1915-1917-----	10,420
Increase-----	505	Increase-----	520
Per cent of increase-----	5.3	Per cent of increase-----	5.2
Average number of colored teachers:			
In 1913-1915-----	520		
In 1915-1917-----	589		
Increase-----	19		
Per cent of increase-----	8.6		

STUDENTS ENROLLED IN MILITARY SCIENCE.

Average number of white students:		Average number of all students:	
In 1913-1915-----	27,678	In 1913-1915-----	29,905
In 1915-1917-----	32,486	In 1915-1917-----	34,222
Increase-----	4,815	Increase-----	4,317
Per cent of increase-----	17	Per cent of increase-----	14.4
Average number of negro students:			
In 1913-1915-----	2,232		
In 1915-1917-----	1,732		
Loss-----	496		
Per cent of loss-----	22		

TOTAL INCOME.

Average total income:	
In 1913-1915-----	\$33,333,859
In 1915-1917-----	\$39,600,845
Increase-----	\$6,266,486
Per cent of increase-----	18.7

THE ASSOCIATION OF AMERICAN AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

The Association of American Agricultural Colleges and Experiment Stations (the principal collegiate association with an exclusively land-grant college membership) in its last two meetings has given special attention to the questions of internal administration. The complex character of the land-grant college, with its divisions of liberal arts, agriculture, engineering, home economics, and experiment stations, has raised problems somewhat difficult of solution. The committee on college organization and policy of the association at its 1917 meeting made a report concerning the administrative relationships of the agricultural college. The report, which was accepted by the association, was based upon a statement of principles and recommendations prepared by the specialist in agricultural education of the Bureau of Education. The recommendations contained in the report¹ follow:

1. That the individual specialist, capable of working independently, should be regarded as the unit of organization.

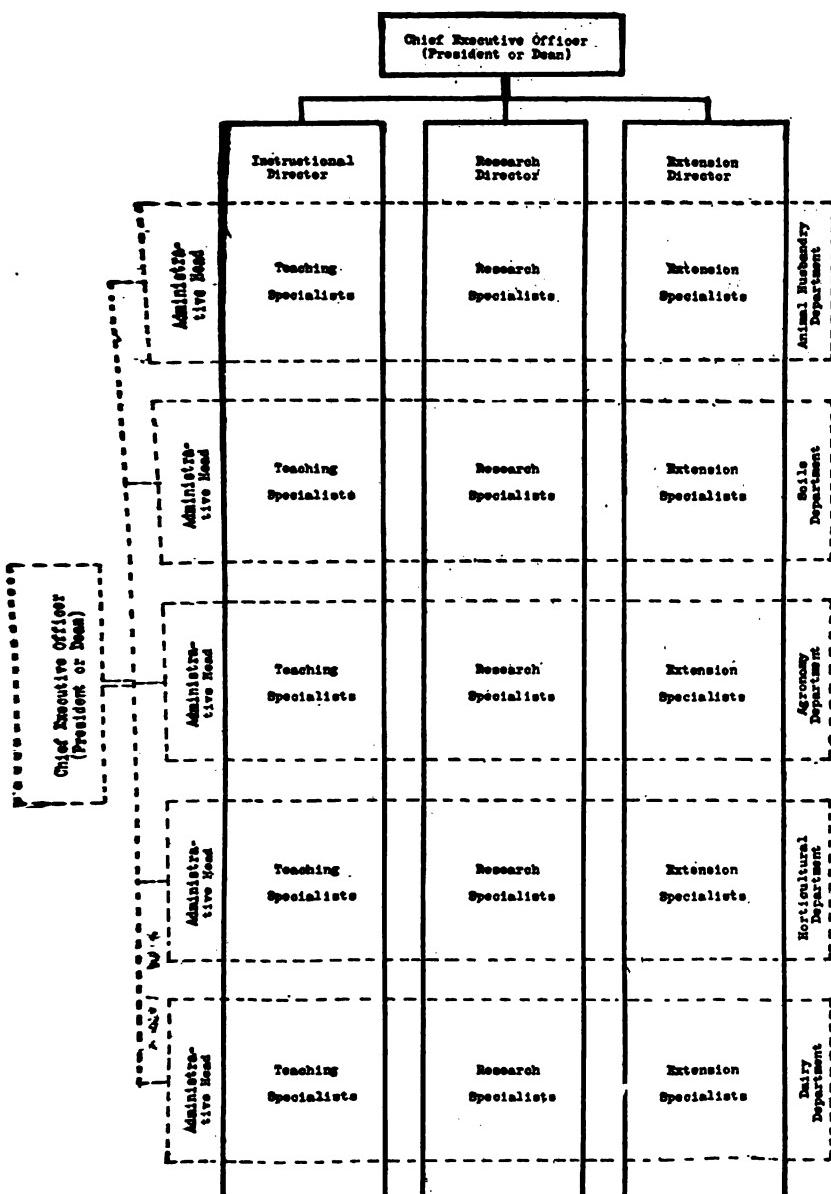
¹ An amplification of these recommendations may be found in Higher Education Circular No. 8, U. S. Bureau of Education.

2. That the group of working specialists on any one of the recognized subjects, regardless of the kind of service, should constitute the subject-matter department.
3. That specialists should devote their time mainly to one kind of service, but provision should be made for exchanges for the mutual advantage of each.
4. That one member of each department should be designated as chairman, or administrative head.
5. That the members of the subject-matter department should be given a voice in the designation of their chairman or administrative head.
6. That authority for subject matter should be confined to the group of specialists comprising the subject-matter department, and that administrative control should be limited to the amount and method of work.
7. That the distribution of administrative authority should be on the basis of the kind of service.
8. That the three kinds of service, each in charge of a secondary administrative officer, should be coordinated under a chief executive who, in the case of a large institution composed of several faculty groups, should be an officer other than the president.
9. That the official designation "dean" in an agricultural college should be applied only to the chief executive officer who is responsible for the coordination of the three phases of agricultural service, and that of "director" should be applied to the coordinate officers in charge of each of the three lines of service—resident instruction, research, and extension.
10. That when one individual performs the duties of two or more offices his official designation should identify clearly the officer with the respective offices assigned.
11. That the leaders in charge of the various phases of the extension service should be regarded as administrative officers and should not usurp the duties of the specialists in the various subjects. Where an individual serves both as specialist and administrative leader, a dual responsibility should be recognized.
12. That in the promotion of extension projects controlled by either connected or cooperating colleges, the same administrative relations with the subject-matter departments concerned should exist as with departments that are organically connected.
13. That incoming correspondence, except that of an administrative nature, should be referred to the subject-matter departments concerned, and there referred to the individual best qualified to supply the information called for.
14. That specialists in whatever kind of service should be on an equal basis from the standpoint of rank and official designation. If differentiation of extension and research specialists is desirable, the prefixes "extension" and "research," respectively, may be used in connection with the customary professorial titles.

The accompanying diagram may serve to explain the administrative relationships referred to above.

HIGHER EDUCATION.

21



Common administrative relationships in colleges of agriculture. Administrative authority follows two channels—one through the directors in charge of each kind of service and the other transversely through the several heads of departments—frequently resulting in conflict. The remedy consists in transferring administrative authority from the heads of departments to the directors of the three kinds of service, resulting in single administrative control.

A NEW ASSOCIATION—THE AMERICAN ASSOCIATION OF UNIVERSITY INSTRUCTORS IN ACCOUNTING.

The teachers of accounting of 16 universities met at Columbus, Ohio, December 28, 1916, and formed an organization known as the American Association of University Instructors in Accounting. The purpose of this organization is to advance the cause of education for business through the study of accounting, to have suitable opportunities for the discussion of problems, to promote more intimate mutual acquaintanceship, to further the standardization of courses, and to recommend policies regarding the reception of migrating students.

The charter members are from the following universities: California, Duquesne, Pittsburgh, Cornell, Yale, Ohio State, Ohio, Cincinnati, Oregon, Wisconsin, Texas, Illinois, Minnesota, Northwestern, Brigham Young, and New York. The association reported 154 degree-granting institutions which offer courses in accounting in this country.

UNIVERSITY SURVEYS AND THE SURVEY MOVEMENT.

Since 1915, eight States¹ have voluntarily submitted their tax-supported higher educational institutions to expert criticism in order to determine their needs with more scientific precision. These surveys have been conducted under the auspices of the Bureau of Education, with cooperation of experts of State and National reputation. The result is that the colleges, on the whole, have been able to strengthen their influence in their constituencies, and correspondingly, the general public and the legislatures have been led to give a more intelligent and sympathetic support than heretofore. The reports of the surveys of the State institutions of Oregon, Iowa, Washington, North Dakota, and Nevada have been discussed in preceding reports. (See Reports of the Commissioner, 1915, pp. 145; 1916, pp. 121.)

THE SURVEY OF THE UNIVERSITY OF ARIZONA.

During the fall of 1916 a survey of educational conditions in the State of Arizona was begun. The study of the State university was made by the specialist in higher education of the Bureau of Education, and President Livingston Farrand, of the University of Colorado.

¹ The following States have concluded surveys of their State-supported institutions of higher education: Oregon, Iowa, in 1915; Washington, North Dakota, Nevada, Arizona, in 1916; South Dakota in 1917. The reports of the first five surveys, with the exception of the Oregon survey, are now published as bulletins of the Bureau of Education. The other reports are in press. The University of Oregon survey is published by the university.

The following brief summary includes a few of the more important recommendations of the committee:¹

Summary of recommendations.

- (a) The better adaptation of the college courses to the needs of the State.
- (b) The rejection by the legislature of any proposals to separate the college of agriculture or any other technical division from the main body of the university, and to establish it at another place.
- (c) The extension of the tenure of office of the regents from four to eight years.
- (d) A more definite policy respecting the tenure of the university faculty.

THE SOUTH DAKOTA SURVEY.

The South Dakota survey was conducted during the fall and winter of 1917. The survey committee was composed of the specialist in rural school practice, the specialist in higher education, and the specialist in agricultural education of the Bureau of Education, in collaboration with Prof. Alexander Inglis, of Harvard University, and local officers appointed by the State. The following brief summary of recommendations is given:

1. It was recommended that the State university, the State college, and the State school of mines be consolidated into a single institution, located preferably in the central portion of the State.
2. In case consolidation seems impracticable, it was recommended that the school of mines be abolished and that the State university and the State college readjust their curricula and courses so as to avoid needless duplication. The principle of major and service lines of work was reendorsed.
3. It was also recommended that one or more junior colleges be established as a part of the State higher educational system.

In this and other surveys the Bureau of Education has stood for policies which would tend to improve the mutual relations of State-controlled institutions of higher education in harmony with the peculiar needs of each State. The bureau has consistently urged the continuance or the adoption of the principle of consolidation when practicable. It has also pointed out the distinctive fields of each State institution on the basis of justifiable duplication when consolidation was impracticable.

THE SUPREME COURT OF MASSACHUSETTS SETS ASIDE THE HARVARD-TECHNOLOGY AGREEMENT.

For nearly three years Harvard University and Massachusetts Institute of Technology have avoided expensive duplication in the teaching of engineering by the adoption of an excellent plan of

¹ For a more extended discussion of this and other surveys see Bulletin, 1918, No. 45, Educational Surveys. For report on normal schools see Bulletin, 1917, No. 48, Educational Conditions in Arizona.

cooperation. Under this plan the university turned over to the institute three-fifths of the income of the McKay endowment (now about \$1,500,000) and agreed to use the extensive laboratories of the institute for the training of men seeking engineering degrees. The engineering faculties of both institutions were merged into a single faculty, which worked under the executive control of the president of the institute. Each institution retained control of its own expenditures and determined its own engineering degree requirements. According to President MacLaurin, the "agreement marked an epoch in the history of educational progress in this country." "The end sought was to build up an educational machine more useful to the community and to the Nation than anything that could be maintained by either the institute or the university acting independently." The result of the merger has proven very satisfactory, both institutions having gained thereby in educational power.

Inasmuch as the validity of the agreement had been questioned, the university asked the supreme court of the State for a decision on the matter. The following extracts from the decision made November 27, 1917, are given herewith:

Mr. McKay intended that not only the investment of the endowment funds but the education which his endowment was to make possible should be under the control and direction of the university, its government, and administration.

In our opinion, the intention of Gordon McKay is not in fact carried out in the agreement in controversy, as we have construed its provisions in their practical operation.

We are constrained to instruct the plaintiff that it can not lawfully carry out this agreement between it and the institute, as far as respects the property received by the University, under the deeds of trust and the will of Gordon McKay.—(Massachusetts Reports, 228, 1918.)

According to Prof Swain:

The decision indicates quite clearly that it was not cooperation with Technology in itself that was considered to render the agreement invalid, but only the character of that cooperation. It had the appearance of putting too much control of school and finance into the hands of Technology. The Technology faculty had practical control of the Harvard school.

Notwithstanding the adverse opinion of the court, the authorities of both institutions set about to develop a new plan which would yield the advantages of cooperation without being contrary to the provisions of the McKay will. A plan was recently adopted which seems to meet the necessary requirements, having received the approval of the trustees of the McKay estate and the governing boards of the university, and it now awaits the approval of the court. The new plan follows:

Voted to establish a school of engineering upon the following basis:

Whereas, in reconstructing an engineering school in Harvard University, it is important to lay stress upon fundamental principles; to make use of the

courses in Harvard College so far as is consistent with the curriculum of the school; and to conduct the school under a faculty of its own, the corporation hereby adopts the following plan of organization:

1. Name. The name of the school shall be the Harvard Engineering School.
2. Departments. The school shall provide "all grades of instruction from the lowest to the highest," and the instruction provided shall "be kept accessible to pupils who have had no other opportunities of previous education than those which the free public schools afford."
3. Admission. Inasmuch as the entrance examinations to Harvard College now admit freely boys from good high schools, the requirements for admission to the engineering school shall be the same as for admission to Harvard College. Admission to advanced standing and special study shall be administered by the engineering faculty.
4. Fees. The fees of students in the school shall be the same as for students in Harvard College, except that supplementary fees for additional or for laboratory courses may be charged.
5. Classrooms and laboratories. The work of the school shall be carried on in the classrooms and laboratories of the university, but arrangements may be made from time to time for the use of the facilities of other institutions for any part of the work (in its advanced technical courses) when the needs, financial resources, and best interests of the school so require.
Arrangements for the use of facilities of other institutions, or the interchange of instruction, shall be made for a period of only one year at a time.
When there shall be income from the funds of the McKay endowment available, in the judgment of the president and fellows, for the construction of new buildings for the engineering school, containing offices, laboratories, workrooms, and classrooms, such buildings are to be constructed on Harvard University grounds and bear the name of Gordon McKay.
6. Faculty. The faculty of the school shall consist of the president of the university and of those professors, associate professors, assistant professors, and instructors appointed for more than one year, the greater part of whose work of instruction is done in the school, and of a limited number of other teachers of subjects offered in the school to be appointed in the usual way. The term of appointment of a teacher from any other institution who gives instruction in the school shall be for one year only; his title shall be lecturer, instructor, or assistant.
The faculty shall, under the direction of the corporation, have control of all instruction given in the school wherever the instruction may be given.
7. Degrees. A student satisfactorily fulfilling the requirements of a prescribed four-year program in any of the engineering fields shall be awarded the degree of bachelor of science in that field.
The degree of master of science, or an equivalent degree, shall be awarded upon the successful completion of at least one additional year of study. For the doctors' degree the requirements shall be similar to those in the graduate school of arts and sciences.
8. Credit for instruction elsewhere. As in the case of every faculty, the faculty of the engineering school may, in its discretion from time to time, allow credit toward the degree under its control for instruction received at another institution or by other instructors.
9. Courses in the school, or the services of its staff, may be made available to qualified students of other institutions.
10. This plan shall be submitted to the supreme judicial court of Massachusetts, or a justice thereof, for approval.

THE RHODES SCHOLARSHIPS.

Nearly one-half of the 400 American Rhodes scholars are now in military or Government service, including practically all of the men of recent years. Six, according to present reports, have lost their lives in the service. Since 1914 the regular operation of the scholarships has been seriously interfered with by the war, and before the United States entered the struggle a large number of the men had already engaged in relief work in Belgium or in duties connected with the Red Cross, the Y. M. C. A., and the ambulance services.

Since the entry of the United States into the war no more selections of American Rhodes scholars have been made. The appointments, however, are only postponed, and the vacancies will be filled when conditions are again normal. New plans for giving publicity for the scholarships and for making the selections are now being worked out. It seems probable that the result of the war will be to intensify the interest in the scholarships as one means for the unification of the Anglo-Saxon race. The German scholarships have been abolished by a special act of Parliament and the funds allotted to various British colonies. The University of Oxford has instituted the degree of Ph. D. and is preparing for extensive organization of graduate work.

In this connection a mission from the British universities which has just finished a tour of the United States is undertaking to arrive at agreements with American universities for mutual recognition of graduate work and for the exchange of students and professors. It is expected that many American officers may be able to spend some time in English universities during the period of demobilization and to that end special short courses have been established in most English institutions for the special benefit of these men. For example, all American students, whether Rhodes scholars or not, will be eligible to take degrees at Oxford under the new war regulations. These regulations provide that any man who has been in military service for at least a year can be admitted to the university without examination, excused from all intermediate examinations, and allowed to take his degree in two years, or even in one if he has had the necessary preparation.

It is perhaps too soon to speak of any large results of the Rhodes scholarships on American education. It may, however, be noted as significant that the system of honors, examinations, and of tutorial instruction has been rapidly gaining ground in American universities during the last half dozen years, and in most institutions where this is the case Rhodes scholars are engaged in administrating the new plan.

In order to facilitate the new arrangements for the selection of Rhodes scholars in the United States and to provide a convenient source of information on this side of the ocean, the Rhodes trustees have recently appointed Prof. Frank Aydelotte, of the Massachusetts Institute of Technology, Cambridge, Mass., as American secretary for the scholarships.

THE CARNEGIE PENSION AND INSURANCE SCHEMES.

Early in 1916 President Pritchett, of the Carnegie Foundation, proposed a new plan which, it was hoped, would gradually supplant the pension system which has been administered by the Foundation for the past 10 years. The plan as described by the Dartmouth committee, which is included in the replies of the presidents and committees of the associated institutions concerning the proposal, in the eleventh annual report of the Carnegie Foundation, contemplates—

The incorporation under the laws of New York of an insurance and annuity agency for the benefit of college teachers. Each teacher upon his entrance into service in the college would be required to take out with this insurance agency a minimum amount of term insurance to mature at the age of 65, and to purchase by annual contributions a minimum annuity which would begin upon retirement from teaching and at the expiration of the insurance. To make the annuity provision effective, a separate savings association is to be created which receives the annual contributions of the teachers and invests them, purchasing at the time of retirement with the accumulations an annuity from the insurance association. It is proposed that the college shall participate to the extent of 50 per cent of the cost of insurance and annuity up to an agreed minimum, or as an alternative that the college shall contribute only toward the purchase of the annuity. The individual is free to increase the amount of both insurance and annuity at will, and it is expected that he will increase his contributions as his salary increases. The details of the plan are not fully stated. It is clear, however, that agency expenses, a large factor in old line insurance, would be avoided.

Administrative expenses and taxes are apparently to be borne by the Foundation, although at one point there is a suggestion that the administrative expenses may come from surplus if there is any. It is not definitely stated what disposition would be made of surplus, should the mortality experience prove to be more favorable than the tables upon which the rates will be based, but the inference is clear that such a condition will lead to the payment of dividends to the policyholders. The Foundation is to guarantee 4½ per cent interest on invested funds.

One unique and distinctly favorable feature of the plan is that which provides for the return of accumulations toward an annuity in case of death, disability, or withdrawal before the annuity is available. Again, even after the annuitant has come into possession of his annual income, any balance of invested funds to his account are returned to his estate in case of death.

In case of death of the annuitant, his widow will receive half of his annuity during her life. The disability privileges are to be made available at the end of 15 years as professor instead of 25 years under the present plan. After this period of service and in case of complete disability, the Foundation will, at its

own cost, pay the insurance premiums and a minimum pension of \$1,200 a year during the period of disability.

The plan was not well received on its first submission to the associated institutions. It was, however, readily conceded that the Foundation would have to be relieved of some of its growing financial burdens. But the institutions which are beneficiaries of the Foundation expressed the opinion that:

The privileges and expectations which have been created under the existing rules of the Carnegie Foundation constitute moral claims against the endowment on the part of such teachers and administrative officers now on the staff of associated institutions as under the present rules would receive retiring allowances and that adequate provision for scrupulously satisfying all these claims should be made before the fund is otherwise drawn upon.¹

In view of the opposition to the plan, the matter was officially brought to the attention of a joint commission including six members of the board of trustees, two members of the American Association of University Professors, one member of the Association of American Universities, one member of the National Association of State Universities, and one member of the Association of American Colleges. After mature consideration the commission unanimously adopted the following resolutions:

Voted: Referring to the resolution of the board of trustees of the Carnegie Foundation, adopted in November, 1915, that "whatever plan is finally adopted will be devised with scrupulous regard to the privileges and expectations which have been created under existing rules," this commission expresses the opinion that the extension to all teachers at present in the associated institutions of the privilege of continuing in the present system would completely meet all their reasonable expectations. The commission assumes that the trustees of the Carnegie Foundation will in due time announce a date after which the privileges and expectations of the present system will not be available to those newly entering upon the profession of teaching.

Voted: That the trustees of the Carnegie Foundation be requested to give all possible consideration to the needs of the older teachers in institutions which are not yet, but may be later, associated with the Foundation.

Voted: The commission does not know the extent to which assistance can be obtained outside the present funds of the Foundation, but it is acting on the expectation of substantial assistance in carrying a large but limited load, and with the further understanding that adequate assistance can not be obtained to carry on the ever-increasing pension burden without calling upon institutions and individual teachers to bear a share.

In harmony with the last recommendation the commission recommended to the trustees of the Carnegie Foundation a plan of insurance and annuities. The purpose of this new organization is—

to set up the machinery under which the teacher may protect himself and his family from dependence, whether by his own death or by old age or by disability; to furnish to the teacher the security of a contract, so that the man who enters upon the accumulation of an annuity at 30 may have a

¹ Eleventh Annual Report of Carnegie Foundation.

contract for its fulfillment at the agreed age; to afford these forms of protection in such manner as to leave to the teacher the utmost freedom of action and to make his migration from one institution to another easy. Finally, whatever machinery is set up to accomplish these purposes should be operated at a cost within the reasonable ability of the teacher to pay.

The proposed charter embodying these purposes is under the title of the Teachers' Insurance and Annuity Association of America. The incorporators who subscribed their names February 1, 1918, are as follows: Elihu Root, Nicholas Murray Butler, Arthur Twining Hadley, Jacob Gould Schurman, Alex. C. Humphreys, Charles P. Stone, John Bassett Moore, Robert Weeks de Forest, George Woodward Wickersham, Newcomb Carlton, Edward Robinson, George Foster Peabody, and Henry S. Pritchett.

ACADEMIC FREEDOM OF SPEECH.

Up to the year 1917-18 the problem of academic freedom of speech involved chiefly the expression of opinions on social and economic questions. With the coming of the war the danger zone shifted. It is natural in times of great national tension like the present that the personal views of thinking men should be expressed with greater vigor or passion than usual. Differences of opinion on questions of national or international policy, ventilated with heat on both sides, easily lead to the impugnment of motives and even to the damning charge of disloyalty. As a result of this surcharged condition of the intellectual atmosphere, many doubtless well-meaning individuals have suffered the extreme academic penalty for utterances which under ordinary circumstances would be passed by with scant notice or criticism. There has developed, therefore, a special problem of academic freedom of speech in war time.

LEADING OPINIONS ON THE PROBLEMS OF ACADEMIC FREEDOM OF SPEECH.

One of the discussions on this subject appeared in the joint report of the Columbia University committee on education and the special committee on the state of teaching. It is of particular interest as embodying an expression of the policy of the board of trustees:

In the whole history of the university, dismissals from the university of a member of the teaching staff have been but six in number; and the record shows that in all of these cases but one the judgment and opinion of representative members of the teaching staff were before the trustees as an important element in affecting their action. In the one exceptional case the reasons for action had no reference to the academic work or relations of the person concerned.

The power of removal has been exercised by the trustees only in these very rare instances, and then only after full investigation and (save in the one case above mentioned) consultation with members of the faculties. In each case

there had been a state of facts which in the judgment of the trustees rendered such action imperative.

In view of these facts there can be no ground for apprehension on the part of anyone that the charter powers of the trustees will be arbitrarily exercised.

In the whole history of Columbia University there is no instance where the trustees have ever subjected any teacher to restraint or discipline by reason of his classroom teaching. The trustees have more than once been urged by other members of the university, by alumni, by parents of students, and by the public press, to take action of this character, but they have never done so. Yet ultimate decision as to whether the influence of a given teacher is injurious to private morals or dangerous to public order and security is one which the trustees may neither shirk nor share nor delegate. We fully concur in the opinion expressed by the president in his annual report for 1910 that academic freedom imposes academic responsibility, and that there are distinct limitations upon academic freedom which should be self-imposed, namely, "the limitations imposed by common morality, common sense, common loyalty, and a decent respect for the opinions of mankind."

In the 1916-17 annual report of the president of Columbia University a more complete statement is made concerning the questions of academic freedom and tenure, the following quotations from which are herewith appended:

It would be little short of a calamity were it not possible for an academic teacher to change his place of occupation without thereby reflecting upon the intelligence or the integrity of those with whom he had been associated, and similarly, if it became impossible for the governing board of a school system or of a school or college to substitute one teacher for another without bringing charges against the person displaced. Any contrary theory assumes a preestablished harmony of which not even Leibnitz dreamed and a preestablished competence which would render it impossible for anyone to be appointed to a teaching position who was not ipso facto entitled to steady promotion and increase in compensation and to a lifelong tenure. * * * Security of tenure is desirable, but competence and loyalty are more desirable still, and a secure tenure purchased at the price of incompetence and disloyalty must sound a deathknell to every educational system or institution where it prevails. These are all matters of grave importance in the government of an educational system or an educational institution. They can not be dismissed with phrases or formulas, but must be met and decided in accordance with sound principle and the public interest.

There is no real reason to fear that academic freedom * * * is or ever has been in the slightest danger in the United States. Evidence to the contrary is quite too manifold and too abundant. What is constantly in danger, however, is a just sense of academic obligation. When a teacher accepts an invitation to become a member of an academic society, he thereupon loses some of the freedom that he formerly possessed. He remains, as before, subject to the restrictions and the punishments of the law; but in addition he has voluntarily accepted the restrictions put upon him by the traditions, the organization, and the purposes of the institution with which he has become associated. Try as he may, he can no longer write or speak in his own name alone. Were he to succeed in so doing, what he might write or say would have, in nine cases out of ten, no significance and no hearing. What he writes or says gains significance and a hearing because of the prestige of the academic society to which he

belongs. To that prestige, with all that that word means, the academic teacher owes a distinct, a constant, and a compelling obligation. To maintain one's connection with an academic society while at war with its purposes or disloyal to its traditions and organization is neither wise nor just. No one is compelled to remain in an academic association which he dislikes or which makes him uncomfortable. What the ancient Stoic said of life itself is true of a university : "The door is always open to anyone who has an excuse of leaving."

On the other hand, academic obligation is reciprocal. The academic society of which the individual teacher is a member owes him encouragement, compensation as generous as its resources will afford, and protection from unfair attack and criticism, as well as from all avoidable hamperings and embarrassments in the prosecution of his intellectual work. Each individual member of an academic society is in some degree a keeper of that society's conscience and reputation. As such, the society as a whole must give him support, assistance, and opportunity.

The same type of mind which insists that it knows no country but humanity, and that one should aim to be a citizen of no State but only of the world, indulges itself in the fiction that one may be disloyal to the academic society which he has voluntarily joined, in order to show devotion to something that he conceives to be higher and of greater value. Both contentions affront common sense and are the result of that muddled thinking which to-day is bold enough to misuse the noble name of philosophy. One effect of much recent teaching of what once was ethics is to weaken all sense of obligation of every kind except to one's own appetites and desire for instant advantage. That economic determinism which is confuted every time a human heart beats in sympathy and which all history throws to the winds has in recent years obtained much influence among those who, for lack of a more accurate term, call themselves intellectuals. These are for the most part men who know so many things which are not so that they make ignorance appear to be not only interesting but positively important. They abound just now in the lower and more salable forms of literary production, and they are not without representation in academic societies.

The time has not yet come, however, when rational persons can contemplate with satisfaction the rule of the literary and academic Bolsheviks or permit them to seize responsibility for the intellectual life of the Nation.

Neglect of one's academic obligation, or carelessness regarding it, gives rise to difficult problems. Men of mature years who have achieved reputation enough to be invited to occupy a post of responsibility in a university ought not to have to be reminded that there is such a thing as academic obligation and that they fall short in it. It is humiliating and painful to find, with increasing frequency and in different parts of the country, men in distinguished academic posts, who choose to act in utter disregard of the plainest dictates of ethics and good conduct. It is fortunate indeed that, however conspicuous are instances of this disregard, they are in reality negligible in number when compared with the vast body of loyal, devoted, and scholarly American academic teachers. It is noticeable, too, that instances of this lack of sense of obligation rarely arise, if ever, in the case of those men whose intellectual occupations bring them in contact with real things. It is only when a man is concerned chiefly with opinions and views, and those opinions and views of his own making, that he finds and yields to the temptation to make his academic association the football of his own ambitions or emotions.

The opinion of the committee on academic freedom and academic tenure, of the American Association of University Professors, is as follows:¹

It is a grave abuse of the power of dismissal when it is used to deny to members of the university faculties the enjoyment of their fundamental constitutional rights as citizens; and an institution in which dismissal is possible upon such a ground as was officially put forward in this case is one in which adequate guaranties of academic freedom are manifestly lacking. It is in some respects a still graver abuse of power when administrative officers or governing boards attempt by their official declarations publicly to attach the stigma of treasonable or seditious conduct to an individual teacher because of acts of his which are in fact neither treasonable nor seditious.

When charges are brought against a member of a college or university faculty upon any ground, the proceedings should, as a matter of course, be strictly judicial in character, and should be in accord with the principle of faculty responsibility. In other words, the person accused should be entitled to have the charges against him stated in writing in specific terms, and to have a fair trial on those charges before either the judicial committee of the faculty or a joint committee composed of an equal number of professors and trustees, which should render definite finding, stating in case of a decision adverse to the accused the precise acts on which the decision is based. The importance of maintaining these procedural safeguards against hasty or unjust action is, if possible, even greater at a time of popular excitement and heightened passions than under normal conditions.

One of the most helpful statements made this year bearing on the question of academic freedom is that found in President Lowell's annual report for 1916-17. The following quotations are of special interest:

The war has brought to the front in academic life many questions which are new, or present themselves to many people in a new light. One of these is liberty of speech on the part of the professor; and it seems a not unfitting time to analyze the principles involved, and seek to discover their limitations. In so doing I shall deal only with higher education, that is with universities and colleges.

Experience has proved, and probably no one would now deny, that knowledge can advance, or at least can advance rapidly, only by means of an unfettered search for truth on the part of those who devote their lives to seeking it in their respective fields, and by complete freedom in imparting to their pupils the truth that they have found.

The teaching by the professor in his classroom on the subjects within the scope of his chair ought to be absolutely free. He must teach the truth as he has found it and sees it. This is the primary condition of academic freedom, and any violation of it endangers intellectual progress. In order to make it secure it is essential that the teaching in the classroom should be confidential. This does not mean that it is secret, but that what is said there should not be published. If the remarks of the instructor were repeated by the pupils in the public press he would be subjected to constant criticism by people not familiar with the subject, who misunderstood his teaching; and, what is more important, he would certainly be misquoted, because his remarks would be reported by the student without their context or the qualifications that give

¹ See Bulletin of American Association of University Professors, April, 1918.

them their accuracy. Moreover, if the rule that remarks in the classroom shall not be reported for publication elsewhere is to be maintained, the professor himself must not report them. Lectures open to the public stand on a different footing, but lectures in a private classroom must not be given by the instructor to the newspapers. That principle is, I believe, observed in all reputable institutions. * * *

Every professor must, therefore, be wholly unrestrained in publishing the results of his study in the field of his professorship. It is needless to add that for the dignity of his profession, for the maintenance of its privileges, as well as for his own reputation among his fellows, whatever he writes or says on his own subject should be uttered as a scholar, in a scholarly tone and form. This is a matter of decorum, not of discipline; to be remedied by a suggestion, not by a penalty.

In troublous times much more serious difficulty and much more confusion of thought arises from the other half of our subject, the right of a professor to express his views without restraint on matters lying outside the sphere of his professorship. This is not a question of academic freedom in its true sense, but of the personal liberty of the citizen. It has nothing to do with liberty of research and instruction in the subject for which the professor occupies the chair that makes him a member of the university. * * *

The university or college is under certain obligations to its students. It compels them to attend courses of instruction, and on their side they have a right not to be compelled to listen to remarks offensive or injurious to them on subjects of which the instructor is not a master, a right which the teacher is bound to respect.

In spite, however, of the risk of injury to the institution, the objections to restraint upon what professors may say as citizens seem to be far greater than the harm done by leaving them free. In the first place, to impose upon the teacher in a university restrictions to which members of other professions, lawyers, physicians, engineers, and so forth, are not subjected, would produce a sense of irritation and humiliation.

In accepting a chair under such conditions a man would surrender a part of his liberty; what he might say would be submitted to the censorship of a board of trustees, and he would not be a free citizen. The lawyer, physician, or engineer may express his views as he likes on the subject of the protective tariff; shall the professor of astronomy not be free to do the same? Such a policy would tend seriously to discourage some of the best men from taking up the scholar's life. It is not a question of academic freedom, but of personal liberty from constraint; yet it touches the dignity of the academic career.

It should be noted in passing that a number of American institutions have been obliged to take action on the unpatriotic activities and utterances of teachers of German origin or avowed German sympathies. The dismissals resulting in these cases have nowhere been regarded as breaches of academic freedom.

THE WORK OF THE COMMITTEE ON ACADEMIC FREEDOM AND ACADEMIC TENURE OF
THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS.

During the past two years the committee on academic freedom and academic tenure of the American Association of University Professors has had brought to its attention over 30 cases of alleged infraction of the principles of academic freedom of speech and academic

tenure. The opinions and decisions of this committee and its subcommittees, some of which have been quoted in former reports of the Commissioner of Education, have grown in weight and importance in the academic world. The committee, by its conservative attitude, has been able to eliminate from public discussion and criticism a large proportion of the cases brought to its doors, and it has also been able to help in the solution of many problems by dealing privately with the institutions and individuals concerned.

The committee has centered its attention on a limited number of cases which led to the exposition of principles underlying academic freedom of speech and permanency of academic tenure. It has in no sense sought publicity. The rulings of the committee have been largely based on the principles stated in the 1915 report of the association. Taken together, the decisions of the committee, already covering a large variety of cases, lay the foundation of a new type of educational law which should prove to be of great value in solving equitably the complex problems of academic freedom of speech and academic tenure.

During the period under review two reports involving questions of academic tenure not relating to freedom of speech have been made by committees of the American Association of University Professors. The first of these was an investigation into the reasons for the dismissal of Miss Winona A. Hughes, dean of women at the College of Wooster, and the methods used by the board of trustees in severing her connection with the college. The committee found the action of the president and the board to be arbitrary, unjustifiable, and such as to jeopardize seriously the standing of the college among American higher institutions. It declared that "the methods of the present administration have not been such as to appeal to the loyalty of a conscientious and self-respecting faculty, and it is equally obvious that they are not the methods which gain for a college the confidence and respect of the academic world."

On June 7, 1917, the State board of education of the State of Montana decided not to retain as president of the State university Dr. E. B. Craighead, who had acted in that capacity for three years. The State board also decided not to reemploy three professors of the university. The matter having been brought before the committee on academic freedom and academic tenure, it was the opinion of the committee after careful investigation that the dismissal of President Craighead and the three professors was not justified. The procedure of the board was criticized by the committee as being unsound in method and disastrous in its results to the interests of the university. (See Bulletin of the American Association of University Professors, May, 1917.)

TWO STATE INSTITUTIONS ATTACKED.

THE MASSACHUSETTS AGRICULTURAL COLLEGE.

During October, 1916, the Massachusetts Agricultural College was criticized at a public hearing held by a commission appointed by the governor of the State to investigate the institution and to see whether its present policies should be continued. The college was charged with inefficiency because it did not turn out more practical farmers, and because it devoted more time than necessary to classical and humanistic studies, while neglecting the practical phases of farm life.

In answer to these objections President Butterfield and his supporters informed the commission that 65 per cent of the college graduates for the past 50 years were engaged in agricultural pursuits, the percentage having increased considerably during the past 10 years. About 80 per cent of the recent graduates are in agricultural vocations. The agricultural college aims to give a broad grasp of farm problems, combined with sufficient practical training. As to the relation between the humanistic and the agricultural subjects, the practice of the college is well stated in the published report of the commission, as follows:

The land-grant colleges were primarily established to promote the study of agriculture by the most advanced and scientific methods of instruction. In their courses of study one naturally expects that science will occupy the most prominent place, and that it should be taught by men well qualified for their work. The Massachusetts Agricultural College meets this expectation.

There are at present 228 courses in agriculture and the cognate sciences, and only 96 courses in mathematics and the so-called humanities. In the first year 48 courses are given in agriculture and mathematics, and only 18 in the humanities. In the second year 6 courses are required in the humanities, and 54 in agriculture and cognate sciences. After the second year a major course can be elected in one of the 17 departments; during the last year 75 per cent of the students elected major courses in agriculture and horticulture. There is no major course in the humanities, and only one-quarter of the students' time is required in these studies. Three-quarters of the students are giving three-fourths of their time to distinctively agricultural subjects. Ten times as many courses are given in junior and senior years in agriculture as were given 10 years ago, and more agricultural studies have been introduced in the first and second years than ever before.

There has been no corresponding increase in humanistic studies. Of the faculty, 54 teachers are engaged in instruction in agriculture and the cognate sciences, and 14 teachers in the humanities and mathematics. Members of the faculty and representative students alike testify that there is a prevailing tendency among the undergraduates to elect studies according to their supposed commercial values and to neglect those studies which aim to strengthen and cultivate the mind. While there is a fair showing of humanistic electives in the curriculum, most of them are not required, as they are in the Massachusetts Institute of Technology and in other colleges, and only a few of

the students elect them. Not only is there to be considered the number of courses, but account must be made of the order in which the courses are offered. The commission recommends that the college authorities consider readjustment of the courses so as to give larger place to practical work in the first two years; also certain courses, as, for example, that in rural journalism, might be carefully scrutinized to see whether they are really desirable and essential offerings of the college.

While the State in its acceptance of the provisions of the Morrill Act is bound to give special instruction in agriculture, it is no less bound by the language of the act to give a liberal education as an integral part of its distinctive work, and not to neglect or relegate to subordinate places those studies which experience has shown are best fitted to nourish and strengthen the faculties of the mind and which will enable men to do better work, whatever that work may be.

The college has been severely criticized because no larger proportion of its graduates become practical farmers, owing it is said to the lack of practical instruction which they receive. An examination of the curriculum shows that this criticism is no longer merited. Practical farm work is now given during the first two years, and is required of every student. Of the total hours assigned to instruction in the division of agriculture and horticulture, 32 per cent are given to classroom work, and 68 per cent to laboratory and field work. The field work should be considered as indispensable as is laboratory work in any science, so that students may apply practically the instruction which they receive theoretically. A summer session has also been recently introduced whereby such work can be carried on more readily. The lack of practical farmers, therefore, among the graduates does not appear to be due to a lack of practical work in agricultural instruction, and can be more readily explained from other causes.

Practical farmers the college does educate. They are found in all parts of the State, and are conducting farms which are profitable to themselves, and are profitable as object lessons.

ATTACK ON THE STATE UNIVERSITY OF TEXAS BY GOV. FERGUSON.

During the early part of the summer of 1917, a serious controversy arose between Gov. Ferguson, of Texas, and President Vinson, of the State university. The cause of the trouble was due largely to President Vinson's refusal to dismiss certain college teachers to whom the governor objected. The latter, by way of retaliation, vetoed the appropriation for the State university, and consequently aroused a great storm of protest from all parts of the State. Inasmuch as the governor had acted unlawfully in the matter, and seriously threatened the financial resources of the university, the legislature in special session passed the necessary appropriation bill for the support of the university.

In August the governor was impeached and removed from office. The articles of impeachment included counts for alleged misappropriation of funds and the abuse of authority in his dealings with the regents and the president of the university.

SPECIAL LEGISLATION TOUCHING HIGHER EDUCATION.**THE SMITH-HUGHES ACT.**

By the enactment of the Smith-Hughes law, a large fund has been made available for the training of teachers in industrial and agricultural subjects. This fund, which is administered by the Federal Board for Vocational Education, amounts to \$546,000 for 1917-18 and increases yearly to a maximum of \$1,090,000 for the year of 1920-21, the latter sum being the annual appropriation thereafter.

The maximum amount of the teacher-training fund to be used in any fiscal year in any one of the three following lines—trades and industries, home economics, and agriculture—is 60 per cent of the total amount allotted to the State for that year for teacher training.

The training of these teachers will be directly under the State board for vocational education, subject to certain Federal regulations. In order to qualify for this special type of training, the teacher-candidate should be a graduate of a four-year high-school. Vocational experience is also required.

THE NEWLANDS BILL.

During the year 1916, Senator Newlands introduced a bill authorizing the appropriation of Federal funds for the establishment of engineering experiment stations in the different States. The bill provides that these stations are to be placed under a board of control, consisting of the Secretaries of the Interior, Commerce, and Agriculture. The approval of the governor of the State is necessary before an experiment station can be established in any State.

Although the bill did not obtain a vote, it has more than usual significance. It contemplates the subsidization of engineering research by a plan similar to that by which agricultural research is now subsidized in the agricultural experiment stations. The bill, furthermore, has the indorsement of the National Association of the State Universities and of other important educational bodies interested in engineering research.

AMERICANIZATION.

The new and important Americanization movement has necessitated the training of teachers to look after the large number of immigrants that annually come to our shores.

During the past year the New York Legislature has appropriated \$20,000 to provide for the training of teachers of adult immigrants, training courses being given during the summer of 1917, in Albany, Buffalo, New York, Rochester, Syracuse, and Nassau County, L. I. At present there are 14 universities and colleges conducting teacher

training classes for teachers of immigrants. These institutions are as follows: University of California; State Normal School, Los Angeles; University of Colorado; State Normal School, Danbury, Conn.; State Teachers' College, Greeley, Colo.; State Normal School, Hyannis, Mass.; American University, Springfield, Mass.; Columbia University and Teachers' College, New York; State College for Teachers, Albany, N. Y.; State Normal School, Buffalo, N. Y.; Syracuse University, Syracuse, N. Y.; University of Pittsburgh; University of Wyoming; University of Wisconsin.

Teacher training classes are also being conducted by various boards of Education, as in Hoboken, N. J., Detroit, Mich., Rochester, N. Y., Cincinnati, Cleveland, and Philadelphia.

PART II. THE COLLEGES AND THE WAR.

- Universities and colleges have been temporarily transformed by the war. It is still too early to say whether any of the changes wrought will be permanent. Certain principles and methods, however, have been developed by the war experience which apparently commend themselves to large numbers of university and college officers. These are treated in some detail at the end of this chapter.

The contributions of the higher institutions to the war are definite and easily recorded. They are also noteworthy. Indeed, it is probable that no other class or group in the population of the United States contributed so large a proportion of its membership to the fighting forces of the country or participated so directly in the leadership of noncombatant war activities. It has often been remarked that the intellectual classes were responsible for the United States joining the Allies. The extent to which public opinion was molded by college officers and college students before the declaration of war is of course difficult to ascertain. It is beyond question, however, that the influence of collegiate communities upon public thought was very great. In spite of the consistent attempts of college officers to foster an open mind and to offer a free forum for discussion of the issues involved during the first three years of the World War, the trend of sentiment in college communities was from the beginning strongly in favor of the allied cause. Many presidents and professors also constituted themselves the spokesmen of this cause before the country. Reflections of the strength of student sentiment are to be found in the overwhelming support given to allied charities by collegiate communities. When the declaration of war came, it found the college world mentally prepared and eager to take its part in what it regarded as a great moral crusade.

PROBLEMS RAISED BY THE WAR.

It has been stated that the officers of higher institutions furnished a large part of the intellectual leadership in the actual conduct of the war. This leadership began to make itself felt at once. The colleges perceived at the outset the problems which they as institutions would have to meet. They perceived these problems in relation to the war enterprise as a whole. In fact, university and college officers seem to have been the only considerable group of individuals who did see in the beginning what were the fundamental human elements in preparation for war and in the successful prosecution of the war. Others, to be sure, grasped the need for deploying the Nation's material strength. The colleges saw first that this would be ineffective unless backed by the complete mobilization of the Nation's resources in knowledge and skill and intention. The colleges iterated and reiterated these truths until appropriate national policies were adopted. And the adoption came regrettably late. Both the successes and the failures of America's war experience demonstrate that the colleges were right.

War is an exceedingly practical business. Many have been surprised that college men, reputed to be a cloistered and unpractical lot, were able to lead in anything so concrete and matter-of-fact. But is it surprising? Besides being a practical business, war is also perennially a new business. Fighting is old, but every war is more modern than its age. The latest devices of science and invention are put to work. Under the tremendous mental tension of war, new devices are produced at a rate unknown in peace. It is the business of university and college instructors to follow the progress of the world in every field of intellectual endeavor. The open mind, adaptability to new conditions, are what they aim to produce in their students also. The double aspect of the present war has often been noted. On the one hand, it has been a war of science, of engineering, of medicine, of agriculture, of transportation; on the other hand, it has been a great moral struggle, in which two divergent concepts of human relationships have collided. University staffs contain men who are expert in each of the fields of science, and men also whose task it is to interpret the ethical aspects of every social movement. That these men should have read both the material and spiritual lessons developed in the three years of war in Europe, and should have sensed their import for the United States in 1917, is not to be wondered at. It would, in fact, have been surprising if they had not. At any rate they were more ready than any other group with suggestions for the practical solution of the difficulties which confronted the Government in April, 1917.



of a long war. It early became clear that, without checking the patriotic impulses of students, steps must be taken to retain a considerable percentage in college.

The colleges naturally looked for central direction. The conduct of the war was the business of the Government. The Government should say what colleges were expected to do. For a number of weeks no governmental direction was forthcoming. The Government's educational activities are distributed among some 20 separate departments and bureaus, no one of which was in a position to speak authoritatively to the institutions on a matter involving the military and economic policy of the Nation.

UNIVERSITY COMMITTEE OF THE ADVISORY COMMISSION OF THE COUNCIL
OF NATIONAL DEFENSE.

In the autumn of 1916 Congress had created the Council of National Defense. The council consists of the Secretaries of War, Navy, Interior, Agriculture, Commerce, and Labor. Associated with it is an advisory commission composed of seven civilians expert in the fields of transportation, munitions, supplies, raw materials, engineering, labor, and medicine. The function of the council is to investigate the resources of the country with a view to their utilization in the event of war. The members of the advisory commission associated with themselves committees of experts to assist in these investigations and in the formulation of policies to be recommended to the executive departments and to Congress. The council is therefore designed in part as a coordinating agency to relate the activities of the executive departments concerned in national defense and to bring to bear civilian opinion upon the problems of the Government. Education was not originally included in the sphere of the council's activities. Shortly after the declaration of war, however, the Commissioner for Engineering of the advisory commission was charged with the task of investigating and reporting upon educational problems related to the war.

The Commissioner for Engineering and Education therefore immediately appointed the nucleus of a committee on educational problems and called a meeting of representatives of the principal associations of colleges and universities, to formulate a comprehensive policy for cooperation between the higher institutions and the Government. The conference was held at Washington May 5. It was attended by the official representatives of the National Association of State Universities, the Association of American Agricultural Colleges and Experiment Stations, the Association of American Universities, the Association of American Colleges, the Society for the Promotion of Engineering Education, and by officers of 187 higher institutions. The following preamble and statement of principles

were adopted by the meeting. They indicate very clearly both the exalted spirit of service which animated the universities and colleges and the accuracy of their forecast of the educational needs of the country during the war.

PREAMBLE.

In the supreme crisis that confronts the Nation the colleges and universities of America have the single-minded thought and desire to summon to the country's service every resource at their command, to offer to the Nation their full strength without reservation, and to consecrate their every power to the high task of securing for all mankind those ideas and ideals that gave them birth and out of which have grown their most precious traditions.

In order that such service may be most intelligently developed and applied, the following declaration of principles is respectfully suggested.

STATEMENT OF PRINCIPLES.

It is our judgment that our colleges and universities should so organize their work that in all directions they may be of the greatest possible usefulness to the country in its present crisis.

We therefore believe, first, that all young men below the age of liability to the selective draft¹ and those not recommended for special service, who can avail themselves of the opportunities offered by our colleges, should be urged so to do in order that they may be able to render the most effective service, both during the full period of the war and in the trying times which will follow its close.

We believe, second, that all colleges and universities should so modify their calendars and curricula as will most fully subserve the present needs of the Nation and utilize most profitably the time of the students and the institutional plant, force, and equipment. With this end in view, we suggest that, as an emergency measure, the colleges consider the advisability of dividing the college year into four quarters of approximately 12 weeks each, and that, where necessary, courses be repeated at least once a year so that the college course may be best adapted to the needs of food production.

We believe, third, that in view of the supreme importance of applied science in the present war, students pursuing technical courses, such as medicine, agriculture, and engineering are rendering, or are to render, through the continuance of their training, services more valuable and efficient than if they were to enroll in military or naval service at once.

We believe, fourth, that the Government should provide or encourage military training for all young men in college by retired officers of the Army and National Guard or by other persons competent to give military instruction, and that the colleges should include as a part of their course of study teaching in military science, in accordance with the provisions of the national defense act of June, 1916.

We believe, fifth, that the Bureau of Education of the Department of the Interior and the States Relations Service of the Department of Agriculture, with the cooperation of the committee on science, engineering, and education of the advisory commission of the Council of National Defense, should be the medium of communication between the Federal departments and the higher educational institutions of the country.

¹ It will be recalled that the Selective Service Act was passed almost simultaneously with this meeting of May 5.

Finally, we believe that an educational responsibility rests on the institutions of higher learning to disseminate correct information concerning the issues involved in the war and to interpret its meaning.

The meeting was addressed by the Secretary of War. In the course of his remarks he made the following significant statements:

I think this, though, is more or less clear to those of us who look at it from the outside: First, that the country needs officers. There is no preference of college men for officers, but because a man has had academic opportunities he has to start with, presumptively at least, a better foundation upon which to build the learning which an officer must have; and therefore to a very substantial extent the country desires its college graduates and its college-bred men of suitable age in the training camps in order that they may be rapidly matured into officers and used in the training of the new forces.

To the extent that the men in college are physically disqualified, or to the extent that they are too young to meet the requirements of the department, it seems quite clear that in the present state of the emergency their major usefulness lies in remaining in the college, going forward with their academic work; and the colleges can, I think, lend some color of patriotic endeavor to their so doing by such simple modifications of their courses and curricula as will show the boys who stay that they are being directly equipped for subsequent usefulness if the emergency lasts until their call comes.

The meeting left behind it a permanent committee attached to the advisory commission of the Council of National Defense. The personnel of this committee follows:

Hollis Godfrey, Sc. D., member of the advisory commission of the Council of National Defense, president, Drexel Institute, chairman.

Henry E. Crampton, Ph. D., professor, Columbia University, vice chairman.

Frederick C. Ferry, Ph. D., dean, Williams College, secretary.

Samuel P. Capen, Ph. D., specialist in higher education in the United States Bureau of Education, executive secretary.

Edwin A. Alderman, LL. D., president, University of Virginia.

Guy Potter Benton, LL. D., president, University of Vermont.

Kenyon L. Butterfield, LL. D., president, Massachusetts Agricultural College. Augustus S. Downing, LL. D., assistant commissioner for higher education, University of the State of New York.

Wilson Farrand, M. A., headmaster, Newark Academy.

Guy S. Ford, Ph. D., director of the division on Civic and educational co-operation of the Committee on Public Information.

Frank J. Goodnow, LL. D., president, Johns Hopkins University.

Edward K. Graham, LL. D., president, University of North Carolina.

Charles S. Howe, Ph. D., president, Case School of Applied Science.

Harry Pratt Judson, LL. D., President, University of Chicago.

A. Lawrence Lowell, LL. D., president, Harvard University.

Frank L. McVey, LL. D., president, State University of North Dakota.

Alexander Melkeljohn, LL. D., president, Amherst College.

Joseph A. Mulry, Ph. D., president, Fordham University.

John S. Nollen, LL. D., president, Lake Forest College.

Raymond A. Pearson, LL. D., president, Iowa State College of Agriculture and Mechanic Arts.

Winthrop E. Stone, LL. D., president, Purdue University.

Henry Suzzallo, Ph. D., president, University of Washington.

William O. Thompson, LL. D., president, Ohio State University.
Robert E. Vinson, LL. D., president, University of Texas.

With recognition of education by the Council of National Defense and the establishment of this committee, higher institutions believed that they had at last located the Government agency which was prepared to give them competent and authoritative direction. Their expectations were only in part fulfilled. The Council of National Defense is not an executive, but purely an advisory body. During the war, moreover, it was equipped with such small financial resources that its facilities even for educational investigation were limited. However, through the agency of the university committee and the committee on the relation of engineering schools to the Government, mentioned below, it was able to bring to the attention of the operating departments some of the major problems of the colleges and to assist in the development of an effective national policy for the utilization of these training facilities.

INDEPENDENT ACTION BY COLLEGES IN PREPARATION FOR WAR SERVICE.

MILITARY TRAINING.

The statement of principles just quoted received wide circulation among colleges and exercised a steady effect. A large percentage of the institutions acted upon the advice contained in this statement. The one activity of foremost importance, as it seemed, in which college students could engage at once was military training. Almost without exception the colleges provided military training. In many cases a large amount of time was devoted to it each week, and academic credit given. Under the national-defense act of June 2, 1916, the establishment of units of the Reserve Officers' Training Corps in all colleges mustering 100 able-bodied male students for the purpose was authorized. Up to the outbreak of hostilities something less than a hundred units of the corps had been established. The great pressure upon the War Department for officers, rifles, and other equipment prevented the extension of the corps (except to the institutions that had already been promised units) during the war. As this was the only form of military training under Government supervision and receiving Government recognition, colleges which did not have the Reserve Officers' Training Corps were obliged to provide such training on their own responsibility. Retired officers of the Regular Army and National Guard were hired as instructors, as far as they were available. Some institutions secured invalided officers of the allied armies. Military training thus made great progress in the spring of 1917. By the opening of the fall term the provision of military training was recognized as the sine qua non of a college's existence.

The opinion of American college officers with respect to the desirability of the general introduction of military training was reinforced by the testimony of representatives of Canadian universities. The university committee of the Council of National Defense held a conference with representatives of Canadian universities on July 3 and 4, 1917. The following gentlemen represented the Canadian universities:

Sir Robert A. Falconer, president of the University of Toronto.

Dr. A. Stanley Mackenzie, president of Dalhousie University.

Dr. H. M. Tory, president of the University of Alberta.

Dr. Frank D. Adams, dean of the faculty of applied science, Macmillan University.

Capt. William H. Alexander, University of Alberta.

These gentlemen reported the establishment in Canada early in the war of officers' training corps in the universities, the training constituting a part of the regular university work for a period of two years. The training was limited to two years because few physically fit upper classmen remained in Canadian universities. Students in arts courses proved excellent candidates for commissions in the Army after having received this training. Officers' training corps units were parts of the militia of the Dominion of Canada. The instruction was regularly given by members of the teaching force of the universities, because it had been found in general that university teachers proved more effective instructors for university men than Army officers.

The results of this conference were reported both to the colleges and to the War Department. The War Department expressed its conviction of the soundness of the contention of college officers that students should be given regular military instruction under the auspices of the department, but regretted that the shortage of men and material prevented the adoption of this policy at once.

SPECIAL COURSES FOR REGULAR STUDENTS INTRODUCED AS A RESULT OF THE WAR.

Before the end of the academic year 1916-17 the majority of institutions had introduced a variety of special emergency courses. The great problem of conservation, especially the conservation of food, received attention not only in agricultural colleges but in colleges of arts and sciences, and especially in colleges for women. Nearly every college with women students offered Red Cross work or home nursing, or both. Engineering schools inaugurated courses in such military applications of engineering subjects as map making, military surveying, bridge building, telegraphy, radio operation, etc. Courses in spoken French and courses in economics, government, and history, designed to illuminate the background and causes of the war, were introduced in a number of institutions.

NEW SCHOOLS AND COURSES.

As early as the spring of 1917 the various branches of the military departments began to recognize the contributions to training for special service which could be made by the organized civilian institutions. The Signal Corps established eight aviation schools in connection with universities. The Quartermaster's and Ordnance Departments contracted with colleges for the provision of storekeepers' courses. The Navy trained ensigns and technical specialists at several large universities lying near the coast. Each of these types of training was managed by the branch of the service in which the candidates were to serve. As yet neither the Army nor the Navy was prepared to develop a comprehensive policy of cooperation with the colleges in the work of training.

CHANGES IN COLLEGE CALENDARS.

A considerable number of institutions adopted the suggestion made in the statement of principles quoted above and reiterated by the Secretary of War regarding the modification of college calendars. The four-quarter year had been debated in educational meetings for a long time. Few institutions had found themselves able to adopt it. The principal obstacle was a financial one, although there were others also. In the enthusiasm of the first months of the war a considerable number of institutions made this change and accepted the financial loss which it entailed as a part of their contribution to the national service.

STUDENTS AND THE DRAFT.

Reference has already been made to the serious military consequences involved in the withdrawal of a large percentage of students undergoing general and technical training before the completion of their courses. The experience of the allied countries in this regard pointed an unmistakable lesson. In the beginning of the war Great Britain and Canada allowed hundreds of scientific experts to go to the trenches as privates or officers of the line. Their higher institutions were decimated. Later, when imperative demand for the peculiar services of these technically trained men came, the men were no longer available. The supply ordinarily furnished by the higher institutions had also been temporarily cut off. Both Great Britain and Canada realized that their failure to use technical men in technical service and to keep a constant flow of scientifically trained students and men of advanced general education issuing from their institutions was a mistake. Military and industrial advisers from both countries warned the United States in the early days of our participation in the war not to repeat this error.

The activities of the medical section of the Council of National Defense were responsible for the protection of medical and dental

students from the draft by special legislation at the time of the passage of the selective-service law. But no similar measures were taken to defer the military service of students in other technical lines and in colleges of arts and sciences. The reason was evidently twofold. In the first place, few people realized that there was danger of serious shortage either of engineers or of arts-college graduates. In the second place, it was regarded as unwise public policy to protect from military service a class of persons which was enjoying already special advantages. The draft must appear absolutely democratic in its operation; otherwise it could not command the support and confidence of the entire country. College officers appreciated the cogency of this argument. They were reluctant to put themselves in a position of asking special favors. Particularly did they hesitate because their motives might seem open to suspicion, a shortage of students having a depressing effect upon the financial status of their institutions.

The draining of the trained and educated resources of the country came not alone from the operation of the draft. College and university students were among the first to volunteer. Until enlistments were entirely barred, colleges were the happy hunting grounds for recruiting officers of every branch of the military service. The sentiment grew that to wait for the draft was the mark of a slacker. College officers were therefore faced with an exceedingly difficult and delicate problem. It would have been disastrous for the morale of the institutions to discountenance volunteering. Without taking this step, the arguments in favor of delay and of a wise, long-distance patriotism were not very effective.

The way in which educational leaders and other public men went about solving the difficulty is of special interest. Indeed, one of the striking aspects of America's first year in the war is the long series of efforts to conserve the supply of men of higher training and to render the selective-service law truly selective in its operation. The history of these efforts is worth recording briefly.

The first public pronouncement appeared in the statement of principles adopted at the meeting of May 5, quoted above. This was followed by a circular issued May 22 by the Commissioner of Education, entitled "Suggestions for the conduct of educational institutions during the continuance of the war, to the end that their educational efficiency may not be lowered and that they may render the largest amount of service both for the present and for the future." In the section addressed to colleges, universities, and technical schools the commissioner made the following statement:

All students should be made to understand that it is their duty to give to their country and to the world the best and fullest possible measure of service, and that both will need more than they will get of that high type of service

which only men and women of the best education and training can give. Patriotism and the desire to serve humanity may require of these young men and women the exercise of that very high type of self-restraint that will keep them to their tasks of preparation until the time comes when they can render service which can not be rendered by others.

On July 19 the Secretary of the Interior brought to the attention of the President the serious falling off in the number of students in higher institutions. The President replied on July 20, as follows:

MY DEAR MR. SECRETARY: The question which you have brought to my attention is of the very greatest moment. It would, as you suggest, seriously impair America's prospects of success in this war if the supply of highly trained men were unnecessarily diminished. There will be need for a larger number of persons expert in the various fields of applied science than ever before. Such persons will be needed both during the war and after its close. I therefore have no hesitation in urging colleges and technical schools to endeavor to maintain their courses as far as possible on the usual basis. There will be many young men from these institutions who will serve in the armed forces of the country. Those who fall below the age of selective conscription and who do not enlist may feel that by pursuing their courses with earnestness and diligence they also are preparing themselves for valuable service to the Nation. I would particularly urge upon the young people who are leaving our high schools that as many of them as can do so avail themselves this year of the opportunities offered by the colleges and technical schools, to the end that the country may not lack an adequate supply of trained men and women.

Cordially and sincerely, yours,

WOODROW WILSON.

In spite of this advice and similar counsel from many other influential persons all over the country, the exodus from higher institutions continued. The actual effect of the war on student enrollment at the beginning of the academic year 1917-18 is shown in the following tables compiled by the Bureau of Education from a questionnaire issued October 1, 1917:

Effect of the war on 313 colleges of liberal arts.

Classes.	Fall of 1916.	Fall of 1917.	Gain or loss.		Per cent.	
Freshman class:			<i>Gain.</i>	<i>Loss.</i>	<i>Gain.</i>	<i>Loss.</i>
Men.....	22,531	18,860	.....	3,671	.....	16.3
Women.....	17,442	17,556	114	.....	0.6	.....
Sophomore class:						
Men.....	14,613	12,505	.....	2,113	.....	14.4
Women.....	11,613	11,882	269	.....	2.3	.....
Junior class:						
Men.....	10,692	8,157	.....	2,535	.....	23.7
Women.....	8,961	9,911	130	.....	1.4	.....
Senior class:						
Men.....	8,712	6,149	.....	2,563	.....	29.4
Women.....	7,285	7,897	611	.....	8.4	.....
Special and graduate students:						
Men.....	4,043	2,419	.....	1,624	.....	40.1
Women.....	3,273	2,919	.....	354	.....	10.8
Total men.....	60,596	48,090	.....	12,506	.....	20.6
Total women.....	48,575	49,345	770	.....	1.6	.....
Total students.....	109,171	97,435	.....	11,736	.....	10.8

Effect of the war on student enrollment in technical institutions.

Colleges.	Number reporting.	Enrollment by sex.		Increase (+) or decrease (-).	Total enrollment.	1916	1917	Number	Percent.	Increase (+) or decrease (-).	Number	Percent.
		Sex.	1916									
Colleges of agriculture.....	38	Men.	11,700	-7,680	-4,119	-34.9	11,700	7,680	-4,119	-34.9	—	—
Men.....	26	Men.	21,048	-6,754	-4,119	-18.4	21,048	25,826	21,078	-4,748	-18.4	—
Women.....	24	Women.	—	+ 6	+ 25.8	+ 25.8	—	1,584	1,175	- 409	-26.8	—
Colleges and schools of engineering.....	13	Men.	1,884	1,175	- 409	-30.9	—	10,478	9,507	- 971	- 9.3	—
Colleges and schools of mines.....	13	Men.	1,432	980	- 154	- 3.6	—	—	—	—	—	—
Colleges and schools of education.....	36	Women.	5,166	3,352	+ 180	+ 3.3	—	6,320	6,521	+ 192	+ 3.0	—
Schools of medicine.....	48	Men.	5,472	5,652	+ 34	+ 18.3	—	—	—	—	—	—
Women.	156	Women.	520	—	—	—	—	—	—	—	—	—
Sex not reported.....	13	Sex not reported.	671	649	- 22	- 3.3	—	—	—	—	—	—
Colleges and schools of architecture.....	13	Men.	1,170	824	- 352	- 29.9	—	1,196	847	- 349	- 29.8	—
Women.....	20	Women.	23	+ 3	+ 15.0	+ 15.0	—	—	—	—	—	—
Schools of law.....	88	Men.	8,342	4,984	- 3,348	- 40.1	—	9,757	6,703	- 4,056	- 41.5	—
Sex not reported.....	88	Sex not reported.	131	160	+ 29	+ 22.1	—	—	—	—	—	—
Colleges of dentistry.....	15	Men.	1,186	549	- 3,157	- 82.6	—	—	—	—	—	—
Women.	72	Women.	68	—	- 4	- 5.6	—	4,102	3,264	- 838	- 20.4	—
Sex not reported.....	15	Sex not reported.	48	39	- 9	- 18.8	—	—	—	—	—	—
Colleges and schools of theology.....	26	Men.	1,187	870	- 317	- 26.7	—	1,187	1,187	- 410	- 26.5	—
Women.....	87	Women.	34	33	- 60.9	- 60.9	—	—	—	—	—	—
Colleges of veterinary medicine.....	8	Men.	526	273	- 253	- 48.2	—	526	348	- 177	- 33.7	—
Colleges of pharmacy.....	26	Men.	1,270	982	- 288	- 22.7	—	2,165	1,901	- 264	- 12.2	—
Colleges of home economics 1.....	26	Women.	117	172	+ 55	+ 47.0	—	—	—	—	—	—
Sex not reported.	26	Sex not reported.	778	747	- 31	- 4.0	—	—	—	—	—	—
Schools of commerce or business administration.....	27	Men.	4,080	3,458	- 622	- 15.2	—	2,788	2,675	- 98	- 3.5	—
Women.	420	Women.	581	450	+ 161	+ 38.3	—	5,019	4,460	- 559	- 10.9	—
Sex not reported.....	27	Sex not reported.	519	177	- 165	- 48.3	—	—	—	—	—	—
Colleges and schools of journalism.....	6	Men.	242	78	+ 20	+ 26.7	—	420	277	- 143	- 34.0	—
Colleges of forestry.....	6	Women.	484	295	- 245	- 51.2	—	484	236	- 248	- 51.2	—

1 Including women in colleges of agriculture.

Other figures compiled by the Bureau of Education during the summer of 1917 with regard to the total available supply of engineers and engineering students, revealed a particularly serious situation with respect to this group of persons. It became evident that the only hope of a satisfactory solution of the difficulty lay in action by the War Department, giving a special military status to engineering students. The university committee of the Council of National Defense, therefore, brought the facts in its possession to the attention of the following bodies: The Association of American Universities, the Association of American Agricultural Colleges and Experiment Stations, the National Research Council, the Society for the Promotion of Engineering Education, the Council of the American Society of Civil Engineers, the Council of the American Society of Mechanical Engineers, and the Council of the United Engineering Societies. Most of these agencies memorialized the Secretary of War, urging in effect that engineering students be placed upon the same military status as students in medicine.

On December 8 the Secretary of War authorized the issuance of regulations which permitted students in schools of engineering to finish their courses before being called upon for active military service. This ruling was embodied in the Revised Selective Service Regulations and read as follows:

Under such regulations as the Chief of Engineers may prescribe, a proportion of the students pursuing an engineering course in one of the approved technical engineering schools listed in the War Department as named by the school faculty may enlist in the Enlisted Reserve Corps of the Engineering Department and thereafter, upon presentation by the registrant to his local board of a certificate of enlistment, such certificate shall be filed with the questionnaire and the registrant shall be placed in Class V, on the ground that he is in the military service of the United States.

The status of engineering students thus established persisted until the abolition of the Enlisted Reserve Corps in 1918, and the establishment of the Students Army Training Corps. By later regulation of the Secretary of War, students in applied sciences were also allowed to enter the Enlisted Reserve Corps of the Quartermaster's Department, the Signal Corps, and the Ordnance Department.

FURTHER EFFORTS TO SECURE FEDERAL DIRECTION OF CIVILIAN TRAINING AGENCIES.

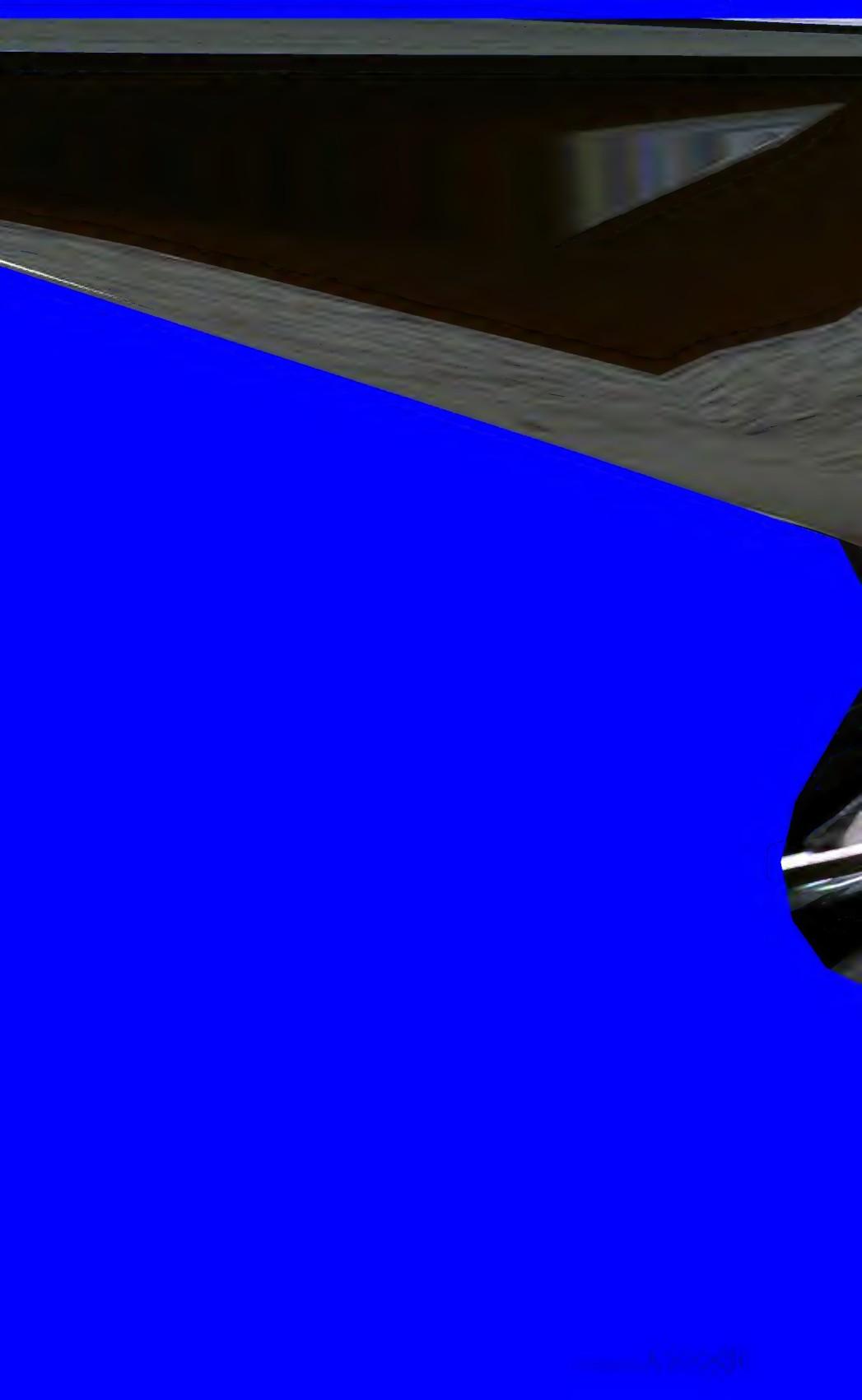
The measures just mentioned resulted in only a partial and inadequate utilization of college resources in the great task of training for war service. They did not furnish the colleges with the authoritative and intelligent direction which was necessary. Neither were they sufficiently definite and drastic to conserve the supply of experts and of officer material. The colleges recognized these defects. From

May, 1917, to February, 1918, a series of efforts were made to induce the Government to coordinate civilian training agencies and to carry out through them a training program appropriate to the immediate needs of the Nation. Since Congress had placed in the hands of the War Department the destinies of young men of college age, it was clear that the responsibility for such coordination rested in the first instance with that department. In fact, the cause of most of the difficulties which colleges faced was the lack of any agency in the War Department itself to consider the question of training in a comprehensive way and to make use of the vast training facilities afforded by civilian institutions. Whatever the opinion of the Secretary of War and the heads of the staff corps with regard to the greater serviceableness of men who had finished their technical training, the inexorable machinery of the selective-service law nevertheless operated to drive technical students as well as others into the Army prematurely. Numerous plans were proposed to the War Department both by individuals and by educational associations looking toward the establishment of such an agency. Indeed, the full utilization of the civilian educational plant by the Government was the principal topic of discussion at nearly every higher educational gathering during this period.

Limitations of space do not permit the complete enumeration of these efforts. The cumulative effect was doubtless influential in securing the action eventually taken. Naturally the governmental agencies for education, especially the educational committees of the Council of National Defense and the Bureau of Education, were in a strategical position to reinforce these efforts and to exert a constant pressure toward the same end. In fact, these two bodies served as foci through which the opinions of the leaders in the university world were brought to bear upon the persons in charge of training for military operations. This whole movement can therefore best be followed by recording the acts of the two bodies mentioned.

COMMITTEE ON THE RELATION OF ENGINEERING SCHOOLS TO THE GOVERNMENT.

In July, 1917, the Commissioner for Engineering and Education of the Advisory Commission of the Council of National Defense appointed a committee to study the relation of engineering schools to the Government, this committee functioning as a subcommittee of the university committee noted above. Its members were Dean F. L. Bishop, of the Engineering School of the University of Pittsburgh (chairman); Dr. S. P. Capen, of the United States Bureau of Education (secretary); President C. S. Howe, of the Case School of Applied



men with reference to their previous occupations, experience, and education. The committee had not completed its work before it became apparent that the draft was failing by a very large per cent to bring into the service the technicians required for ordinary military operations. Indeed, the calls for specialists from the American Expeditionary Force were operating to strip the units in home camps of the skilled personnel absolutely essential to the effective maintenance of these units. Moreover, the increasing pressure upon technical industries for the production of war materials rendered it unwise to draft larger numbers of technically trained men. It was clear, therefore, that emergency training devices must at once be established, if the Army program were to be a success.

The General Staff officer assigned to the study of this problem and the committee on the relation of engineering schools to the Government worked out a tentative plan for the creation of machinery in the War Department which should supervise the training of both the lower and higher grades of technical experts and should enlist the cooperation of civilian institutions in the task of training.

With the relief of this officer and the assignment of another to the same task, the tentative plan was temporarily shelved. The Federal Board for Vocational Education, which had been established in July, 1917, offered its services to the General Staff for the training of technicians and trade specialists for the Army. The Adjutant General, therefore, issued an order on November 15, 1917, directing the heads of the staff corps to apply to the Federal Board for the numbers of technically trained men needed by each corps. The Federal Board established at once emergency courses in several of the Army occupations for the training of men awaiting the draft. These measures served as only a partial remedy for the difficulty. Their principal defect lay in the fact that the Federal Board had no means of controlling the numbers of men in training. It was also handicapped in administering an extensive training program, owing to the fact that most of the men in its courses were following their regular occupations. It was evident that no accurate correlation of training with the Army needs could be secured without a change of policy.

The Federal Board for Vocational Education consequently brought together the representatives of secondary and higher technical training at two conferences in Washington, and secured their indorsement for a proposal to the Secretary of War substantially similar to that made by the committee on the relation of engineering schools to the Government. The principal feature of both plans was that the War Department should create a special board or committee to have charge of the Army training enterprise other than military, and

should rely upon civilian institutions for the provision of training facilities.

EMERGENCY (AMERICAN) COUNCIL ON EDUCATION.

College and university officers had been growing more and more impatient at the delay in the formulation of the Government policy toward higher institutions. The feeling that there should be at the seat of the Government an independent body without governmental connections which could present the views and the situation of the colleges, gradually crystallized at meetings of the Association of American Colleges and the National Association of State Universities held in Chicago in January, 1918. Delegates from these associations, from the Association of Urban Universities, the Catholic Educational Association, the American Association of University Professors, the Society for the Promotion of Engineering Education, the Association of American Medical Colleges, and the various branches of the National Education Association met in Washington during the last week in January, under the chairmanship of the specialist in higher education in the Bureau of Education. The meeting resulted in the formation of the Emergency Council on Education, the declared purpose of which was:

To place the educational resources of the country more completely at the service of the National Government and its departments, to the end that through an understanding cooperation:

The patriotic services of the public schools, professional schools, and colleges and universities may be augmented;

A continuous supply of educated men may be maintained; and

Greater effectiveness in meeting educational problems arising during and following the war may be secured.

The Emergency Council elected the following officers:

President Donald J. Cowling, Carleton College, president.

President P. L. Campbell, University of Oregon, secretary.

Dr. Robert L. Kelly, executive secretary.

Executive council.

The president and secretary.

Dean Herman V. Ames, of the University of Pennsylvania.

President Homer H. Seerley, Iowa State Teachers' College.

Right Rev. Thomas J. Shahan, Catholic University of America.

The council changed its name after the first meeting to the American Council on Education. It established headquarters in Washington, and through the active efforts of its executive officers it served as a valuable mediating agent between the Government departments, particularly the War Department, and educational institutions. It interpreted the measures later adopted by the War Department to the colleges. It was especially effective in keeping the operating departments constantly informed of the views and desires of the educational leaders of the country.

COMMITTEE ON EDUCATION AND SPECIAL TRAINING OF THE WAR DEPARTMENT.

The preceding discussion has shown the development of a strong body of opinion, both inside and outside the War Department, as to the necessity for formal action by the department in the matter of its educational program. The Secretary of War and his advisers had before them in the latter part of January the plans suggested by various individuals, by several educational associations, by the committee on the relation of engineering schools of the Council of National Defense, and by the Federal Board for Vocational Education. All were in agreement as to the fundamental ends to be attained. There were indeed only minor differences in the various solutions proposed. On the 10th of February, 1918, the Secretary of War created the committee on education and special training. The order authorizing this committee and defining its functions follows:

1. There is hereby created within the War Department the committee on education and special training. This committee of three members shall consist of Col. Hugh S. Johnson, Deputy Provost Marshal General; Lieut. Col. Robert I. Rees, General Staff, and Maj. Grenville Clark, Adjutant General's Department.
2. Under the direction of the Chief of Staff, the functions of the committee shall be: To study the needs of the various branches of the service for skilled men and technicians; to determine how such needs shall be met, whether by selective draft, special training in educational institutions, or otherwise; to secure the cooperation of the educational institutions of the country and to represent the War Department in its relations with such institutions; to administer such plan of special training in colleges and schools as may be adopted.
3. The committee on education and special training shall have associated with it an advisory civilian board appointed by the Secretary of War, composed of representatives of educational institutions. An officer shall be detailed by the chief of each staff corps and department to consult with the committee concerning the needs of his corps or department.
4. The committee will be given such assistance, commissioned and civilian, as may be necessary to fully execute its duties, with office room in the War Department Building.

The Secretary of War appointed the following gentlemen to serve as members of the advisory board, representing civilian educational interests:

- Dr. C. R. Mann, of the Carnegie Foundation for the Advancement of Teaching, representing engineering education (chairman).
Dean James R. Angell, of the University of Chicago, representing university education.
Mr. J. W. Dietz, educational manager of the Western Electric Co., representing vocational education.
Mr. J. P. Monroe, member of the Federal Board for Vocational Education.
Dr. S. P. Capen, specialist in higher education in the Bureau of Education.

Later President R. A. Pearson, of Iowa State College, was appointed to represent agricultural education, and Mr. Hugh Frayne to represent labor interests. On the resignation of Mr. Monroe, his place was filled by Dean Herman Schneider, of the engineering school of the University of Cincinnati.

NATIONAL ARMY TRAINING DETACHMENTS.

Immediately upon its organization the committee and its advisory board proceeded to secure estimates from the staff corps as to the needs of the different branches of the Army for technically trained men. These needs were calculated as accurately as possible and compared with the estimated number of practitioners of various trades that could be expected from the operation of the draft. It appeared that there would be a shortage of approximately 100,000 mechanics by September 1, unless special training courses were set in operation. The committee regarded the provision of these 100,000 mechanics as its first task.

Ordinarily the trade schools and technical high schools would have been enlisted to provide the necessary training. The character of the present emergency, however, made this course of procedure impractical. The committee was engaged in training soldiers. The men over whom it had jurisdiction were already enrolled in the Army, either by voluntary induction or draft. They must therefore be under military discipline and control while receiving their technical training. To insure the effectiveness of this control, they must be housed and fed under military conditions. It was not sufficient that adequate training facilities should be provided by institutions which undertook to train these men. Living quarters and a common mess were likewise essential. Moreover, the requirements of the Army service demanded that all technical specialists should have had contact with practical operations identical with those which they would have to perform with the military forces.

Few trade schools and technical high schools possessed either the housing facilities or the large shops necessary to meet these conditions. The committee therefore turned first to the engineering schools of the country, in the belief that they would be willing to depart from their usual procedure to the extent of accepting and training these groups of tradesmen. With very few exceptions, the engineering schools enthusiastically volunteered for the task. Altogether the committee established 147 training centers for technicians. Of these, 123 were at engineering schools. Some 47 of the principal Army occupations were taught. By April 1 the first 6,000 men were under instruction. At the time of the signing of the armistice 130,000 had been trained; 92,000 had been assigned to military units;

and more than 70,000 had been sent to France. The General Staff had authorized the committee to train 220,000 more before the summer of 1919.

Certain brief comments on the principles underlying the training of these technicians in the so-called National Army Training Detachments and the methods employed may be in order. It was necessary that the training should be brief and intensive. If the requisite number of men were to be produced by the autumn of 1918, the training courses could not exceed two months in length (except for a few trades in which the numbers were small). At the outset it seemed absurd to suppose that inexperienced men could be taught a mechanical vocation in two months. But, to the surprise of the committee and of the school officers, the majority turned out to be competent mechanics on the completion of the courses. In fact, the reports of the officers of active field units to which they were assigned for special duty showed that they were entirely satisfactory and that they saved the situation.

The reasons for this unexpected and truly extraordinary result are not far to seek. They may be summarized under three heads: (a) Adequate motivation, (b) an intensive and practical method, and (c) Army discipline.

(a) The experience of the committee, like that of other war-training agencies, appears to demonstrate that the educational processes of peace have used but a portion of the individual's capacity. They have not supplied a compelling motive. With a motive and a method of instruction which is at once practical and interesting, the progress of the learner in any practical pursuit is astonishing. In these courses for technicians the motive for a supreme effort on the part of the student soldier was of course patent. Every man expected that proficiency in the trade which he was learning would improve his military status. Nearly every man also was animated by a high spirit of patriotism.

(b) The training methods were as practical as possible. A theoretical or scientific background was not regarded as important. The vital object was to inculcate a knowledge of the job and to develop resourcefulness. Men were consequently put to work at once on practical industrial problems. Automobile mechanics were set to taking down and re-assembling cars; carpenters were given simple building to do. The necessary theory was interwoven with this practical work in greater or less measure. The committee's guide, however, was not any preconception of the pedagogical advantages of one or another mode of presentation. It was rather the specific definition of the job each specialist would have to perform as a member of an Army unit. Because the courses were established on short notice, it was impossible to formulate teaching material to

help the schools. School officers were therefore given the definition of the finished product. For example, a tire repairer would have such and such specific things to do. The committee furnished the men and a statement of the goal; it left the school officers to work out the method whereby the goal might be reached, insisting only upon a maximum amount of actual practice. This resulted in the development of a multiplicity of teaching devices and a wholesome pedagogical rivalry among the different institutions.

(c) The whole training enterprise was galvanized and systematized by military discipline. Moreover, all the men in training were under military instruction for several hours a day, and were consequently in splendid physical condition.

Although the vocational training in the National Army Training Detachments, as they were called, was not higher education, a discussion of it properly belongs in this section, both because it represents an educational contribution made by higher institutions and because of its influence upon the normal educational processes of many institutions. The inclusion of a group of men devoting themselves to a less advanced grade of technical training was, in the beginning, regarded with disfavor and alarm by college officers. After eight months' experience, many of these same officers came to two unexpected conclusions, namely, (1) that the methods employed in the vocational courses might profitably be applied to some extent in the higher grades of professional training, and (2) that the presence of a body of men engaged in practical processes, with an immediate vocational goal in view, strengthens rather than weakens the academic morale.

There is still another aspect of the training offered the National Army Training Detachments which bids fair to have lasting influence, not only on vocational training, but on higher education. It was noted above that the men under special training in these detachments were considered by the Army primarily as soldiers. An ideal soldier, from the point of view of the General Staff, is a resourceful, adaptable man, with initiative and conviction of the righteousness of his cause. The narrowly trained specialist may fail to be a successful soldier. From the beginning, therefore, the committee held that other elements than purely trade instruction should be included in the training. It sought to solve the problem by introducing weekly discussions on the war aims of the United States. These discussions were designed to cover the historical background of the war, the economic and social development, and the types of government of the belligerent countries; and to acquaint the soldier with the expression of different national purposes and philosophies, as these have found their way into literature. No attempt was made to

create official propaganda. The discussions were intended rather to assist soldiers to answer the questions which naturally arose in their own minds. This war-aims course later developed into the war-issues course for the Students Army Training Corps.

7

THE STUDENTS' ARMY TRAINING CORPS.

Having inaugurated the units of the National Army Training Detachments, the committee and its advisory board proceeded to study the more complicated question of the proper development of the potential officer material contained in colleges and universities. The committee was convinced that the measures already taken to enroll technical students in the Enlisted Reserve Corps were a wholly inadequate solution of the problem. The majority of the students were not satisfied with this status and could not be convinced that they were serving their country in the most useful manner by entering the Enlisted Reserve Corps. Something more definite was demanded, not merely to preserve the supply of prospective technical specialists, but to keep the colleges from being stripped of students. Such a result would have been very unfortunate, from a military as well as an educational point of view, in the event of a long war. The solution which the committee proposed was finally embodied in a letter addressed by the Secretary of War to presidents of colleges, on May 6, 1918:

In order to provide military instruction for the college students of the country during the present emergency, a comprehensive plan will be put in effect by the War Department, beginning with the next college year, in September, 1918. The details remain to be worked out, but in general the plan will be as follows:

Military instruction under officers and noncommissioned officers of the Army will be provided in every institution of college grade which enrolls for the instruction 100 or more able-bodied students over the age of 18. The necessary military equipment will, so far as possible, be provided by the Government. There will be created a military training unit in each institution. Enlistment will be purely voluntary, but all students over the age of 18 will be encouraged to enlist. The enlistment will constitute the student a member of the Army of the United States, liable to active duty at the call of the President. It will, however, be the policy of the Government not to call the members of the training units to active duty until they have reached the age of 21, unless urgent military necessity compels an earlier call. Students under 18 and therefore not legally eligible for enlistment, will be encouraged to enroll in the training units. Provision will be made for coordinating the Reserve Officers' Training Corps system, which exists in about one-third of the collegiate institutions, with this broader plan.

This new policy aims to accomplish a twofold object: First, to develop as a great military asset the large body of young men in the colleges; and second, to prevent unnecessary and wasteful depletion of the colleges through indiscriminate volunteering, by offering to the students a definite and immediate military status.

Later announcement will be made of the details of the new system. In the meantime, presidents of collegiate institutions are requested to call this matter to the attention of all their students. Those who do not graduate this spring should be urged to continue their education and take advantage of this new opportunity to serve the Nation.

This letter was the first announcement of the Students' Army Training Corps. It was followed by a more definite and detailed statement in the latter part of June. It was the original intention of the War Department to interfere as little as possible with the freedom and independence of colleges. While providing facilities for military training and furnishing young men a strong incentive to attend college, the department expected to leave full liberty of action to college officers, in the development of courses and in the conduct of the institutions. Plans were made during the summer by the committee to put the Students' Army Training Corps into operation on this basis. The committee also indorsed a campaign for collegiate enrollments, which was undertaken by the American Council on Education and the Bureau of Education.

While these arrangements were being made, the military situation changed. It became imperative to deploy America's forces on a vastly greater scale. On recommendation of the Secretary of War and the Chief of Staff, therefore, Congress passed the man-power bill August 30. This action necessitated two radical modifications of the Students' Army Training Corps plan. First, there was no possibility of keeping a large number of men in college for two or three years prior to their attainment of draft age. The new draft ages were from 18 to 45. Second, a very greatly increased number of officers were demanded for the new armies of the autumn of 1918 and the spring of 1919. The central officers' schools could not be relied upon to furnish all of these. Colleges must be regarded as one of the principal sources of officer material.

Authorization for the creation of the Students' Army Training Corps as an active military unit was therefore secured from the President, and the following General Orders No. 79 issued on August 24, 1918:

Under the authority conferred by sections 1, 2, 8, and 9 of the act of Congress authorizing the President to increase temporarily the Military Establishment of the United States, approved May 18, 1917, the President directs that for the period of the existing emergency there shall be raised and maintained by voluntary induction and draft a Students' Army Training Corps. Units of this corps will be authorized by the Secretary of War at educational institutions that meet the requirements laid down in the regulations.

The fundamental difference between the student soldier under the first plan for the Students' Army Training Corps and the member of that corps under the revised plan was that now he became a soldier on active duty. This meant that he must be constantly under mil-

itary control; that he must be housed, clothed, and subsisted by the Government. The relations of the War Department to the colleges, therefore, were radically changed overnight. Colleges which had been approved for units of the Students' Army Training Corps under the first plan were now asked to contract with the War Department for the housing, feeding, and instruction of student soldiers, who should be at all times under military authority. It is a striking testimony of the patriotism of the colleges that practically all of them consented to enter this arrangement. Five hundred and seventeen higher institutions were authorized to maintain units of the Students' Army Training Corps.

On the administrative side difficulties at once arose, which the committee indeed foresaw but could not remedy. The members of the corps were theoretically at all times under military control. College officers, relieved of discipline and deposed from their ordinary authority, were nevertheless in a measure responsible for the academic progress of members of the corps. There was divided responsibility therefore, and an unfortunate dualism of authority which was never remedied before the demobilization of the Students' Army Training Corps.

The Students' Army Training Corps had a brief six weeks of life. Part of this period, moreover, was rendered useless in many institutions by the influenza epidemic which swept the country in the months of October and November, 1919. Indeed, the Students' Army Training Corps ran just long enough to develop all the possible centers of friction and to expose all its serious defects. The orders for its demobilization came before these defects could be remedied. Nevertheless, there were certain educational concepts involved in the plans for the corps which are worth recording. These have been recognized and appreciated by many college officers.

1. *Needs.*—Like the trade training in the National Army Training Detachments, the officers' training carried forward in the Students' Army Training Corps was to have been predicated upon a careful estimate of the needs of the Army for various kinds of officers. For example, the committee discovered that the Infantry service would require from the colleges 3,000 officers a month from October, 1918, and that the Field Artillery would require 2,000 a month. It analyzed the work which each of these types of officers would have to perform and the problems which they would have to meet. It then proceeded to organize courses to fit men directly for these tasks. The courses were originally outlined in consultation with officers from the various services. They were being modified and elaborated at the time of the demobilization of the Students' Army Training Corps. A system was also about to be inaugurated to as-

sign to each course a number of men corresponding to the number required in that branch of the service for which the particular course was designed to train. It was the committee's purpose to integrate training with Army needs, precisely as it had done in the case of mechanics and artisans.

The first prescribed courses issued to the units of the corps carried out in a tentative way this theory. It was understood that members of the Students' Army Training Corps would be called to active service at the time of the summoning of the age groups to which they severally belonged. Thus it was assumed that 20-year-old registrants would be called by January 1, 1919, that 19-year-old registrants would be called by April 1, 1919, and that the 18-year-old group would be summoned in July or August, 1919. The committee therefore required that the college year be divided into quarters. It assumed that 20-year-old students could remain in college three months, 19-year-old students six months, and 18-year-old students nine months. Exceptions were to be made in the case of students of unusual proficiency in specialized curricula, such as engineering, chemistry, medicine, etc. Former college class alignments were abandoned. Curricula were organized leading to each of the principal line and staff services, and divided into quarters. Each curriculum contained certain prescribed subjects. Military drill and a course on the issues of the war were prescribed in every curriculum. In the case of the three months' student the prescriptions were so numerous that there was practically no elective opportunity. A greater amount of freedom of choice was granted to the six months' student; the nine months' student, being allowed to distribute his prescribed work over three quarters, had a considerable amount of academic liberty.

2. *New organization of humanistic training.*—The course on the issues of the war which was prescribed in every curriculum was the direct result of the committee's satisfactory experience with the waraims courses given to members of the National Army Training Detachments. Indeed, the outline for this course was evolved very largely from the questions asked by members of the National Army Training Detachments. The course on the issues of the war combined history, economics, government, literature, and philosophy. It paid no attention to the artificial divisions which have separated these subjects in the past. It aimed rather to bring about a fusion of the essential elements of these and other subjects. The design was to furnish the student soldier with facts, criteria, and inspiration which would enable him to understand his world and to relate his conduct to the major issues of his life. Incidentally the committee's action resulted in breaking down temporarily the illogical barriers between departments which have so long been traditional in academic organi-

zation. The courses on the issues of the war could not be fairly tested in practice within a period of six weeks. In many institutions, however, the principle upon which they were based so far commended itself to college officers that these courses are to serve as the model for organizing the fundamental elements of peace-time humanistic training. Commenting upon the permanent value of the war-issues course, Dean Woodbridge, of Columbia, says:

In the past, education was liberalized by means of the classical tradition. It afforded for educated men a common background of ideas and commonly understood standards of judgment. For the present that tradition no longer suffices. If education is to be liberalized again, if our youth are to be freed from the confusion of ideas and standards, no other means looks so attractive as a common knowledge of what the present world of human affairs really is. The war has revealed that world with the impelling clearness which tragedy alone seems able to attain. That our student soldiers may see the issues is of immediate consequence; but the war and its issues will be the absorbing theme of generations to come. To the thoughtful, therefore, the course affords the opportunity to introduce into our education a liberalizing force, which will give to the generations to come a common background of ideas and commonly understood standards of judgment.

3. *Objective tests.*—Inductions into the Students' Army Training Corps were originally based upon bona fide college membership. Colleges were expected to enforce their ordinary admission requirements. A larger number of new students than usual were drawn into the colleges, because the Government assumed their expenses and paid them soldiers' pay. The large and continuous supply of officer material which would be demanded, however, could not be produced with certainty if the old formal admission requirements must be absolved by every student soldier. The Students' Army Training Corps would have to be recruited from that much larger stratum of the population which possessed the capacity to pursue work of college grade but could not meet the formal entrance requirements. Hence a system of recruitment for the corps was devised which combined three elements: (a) A personal interview with every candidate, the purpose of which would be to determine the character of his schooling and experience and his general qualifications for college work; (b) the Army intelligence test; (c) in the case of candidates for courses which by their professional nature demanded special preparation in one or more subjects, such examinations as would be necessary to test the candidate's proficiency in these subjects. This recruitment plan was never issued, because demobilization of the corps was ordered and recruitment ceased. It is undoubtedly cause for regret that a comprehensive experiment with psychological and other objective tests of fitness for college work could not have been made. The material prepared by the committee has, however, interested numerous college officers and has apparently stimulated discussion

and careful consideration of its possible application in college entrance procedure.

Reference has been made to the brief life of the Students' Army Training Corps. To complete the record, it should perhaps here be stated that the corps enrolled some 142,000 men. The signing of the armistice on the 11th of November did away with the need for continuing it as the source of supply for officers. It was ordered demobilized by December 21.

It is, of course, still too early to say what, if any, effects the Students' Army Training Corps may have had upon college methods and organization. There has been, as might be expected, a period of sharp reaction. College officers, smarting under the humiliations imposed by the system of military control, are not disposed to find many virtues in the scheme. On the other hand, aside from the possible influence of the educational policies described above, the influence of military training and discipline upon the student body may have some permanent results. Both faculties and students have recognized the greater efficiency of a student body subject to a military régime. The by-products in the way of physical fitness, development of courtesy, and the spread of a democratic spirit are also too desirable to be lost. Colleges now have before them the task of devising means to retain these tangible advantages of the period of war training. They are also faced with the problem of transforming the spirit of self-sacrifice engendered by the national emergency into a spirit of service to the community and to the Nation in peace. The solution of this problem is admittedly difficult; but unless it is solved America will have lost the best fruits of the war.

It is worth while to point out one fundamental aspect of the Students' Army Training Corps which has not always been recognized. For the first time in history the higher institutions of the country were united in a common purpose. By offering themselves voluntarily to the War Department they created a single training plant for the production of specialists and officers for the Army. In other words, there was created for a brief period a national system of higher education. Further, the whole training program carried out in this system was based on an accurate forecast of national needs. The conditions were of course abnormal. They could never occur in times of peace; nor is it desirable that higher education should be controlled from the center. Nevertheless, this temporary organization contains important implications upon which the colleges themselves may profitably act.

The Students' Army Training Corps saved colleges from virtual extinction. In the letter announcing the plan (quoted above) the Secretary of War alludes to the preservation of higher education as

one of the two important purposes to be attained. In spite of the difficulties of readjustment to a peace basis and in spite of the financial losses (in case of some institutions very great), the higher educational machinery of the United States emerges from the war in more nearly normal condition than that of any other country.

The 15 months of effort to secure an adequate recognition of the importance of civilian training agencies culminated in the Students' Army Training Corps. With the establishment of this agency the Government accepted in its totality the contention of university and college authorities that higher institutions should be formally incorporated into the training plant of the military departments.

THE MOBILIZATION OF SCIENCE.

It was stated at the beginning of this section that the second great problem to the solution of which colleges contributed was the mobilization of science. It was generally recognized when the United States entered the war that the country possessed in its university, laboratories, and staffs of trained research workers an immense scientific capital which could be made immediately productive. Various agencies were at once established to facilitate the use of these resources by the Government and to designate problems for investigation which possessed special military importance.

THE INTERCOLLEGIATE INTELLIGENCE BUREAU.

One of the earliest of these agencies was the Intercollegiate Intelligence Bureau, established by the voluntary action of a group of universities and colleges, under the direction of Dean William McClellan, of the University of Pennsylvania. This bureau set itself the task of furnishing to Government departments, on request, the services of experts needed for highly specialized scientific and administrative tasks. Under its direction the scores of higher institutions which joined it prepared personnel records of those members of their student and alumni bodies and faculties who might be available for such services. Throughout 1917 the bureau furnished effective help to many Government agencies in building up an expert personnel.

THE NATIONAL RESEARCH COUNCIL.

The National Research Council, created by the National Academy of Sciences and affiliated with the Council of National Defense, served as the central agency for determining the research problems connected with the war, allocating them to different scientific agencies for solution and coordinating the results. Under its general direction the great centers of research throughout the country were

kept occupied with Government work. In some 25 of the leading educational institutions the study of problems relating to military optics, to ordnance, munitions, topography, and food conservation were carried on. The council was also concerned in investigations relating to gas defense, dyes, devices for the Navy, high explosives, electrical problems connected with wireless, smoke screens, fuel substitutes, detection of submarines, various pathological and medical problems, the testing of materials, etc. Associated with it also were the group of psychologists, whose contributions revolutionized the methods of organizing Army and Navy personnel.

THE WAR SERVICE OF PROFESSORS.

Large numbers of academic experts in pure and applied science were summoned from their regular university duties and entered the Government service. They became expert advisers and administrators for the Army, the Navy, the War Industries Board, the Food Administration, the Fuel Administration, and nearly every other branch of the Government engaged in preparing for and waging war. A complete census of college and university teachers so employed has not been, perhaps will never be, made. They were numbered literally by hundreds. They rendered services which none but men so trained could render. They were indispensable. Doubtless the effect of this service on the status of the university professor in the public mind will be revolutionary.

THE DEVELOPMENT OF PUBLIC MORALE.

The third problem relating to preparation for war, in which from the outset the higher institutions were concerned, was the development of public morale. Reference to the statement of principles on page 40 shows that college officers early recognized their responsibility in the dissemination of correct information concerning the issues of the war and the interpretation of its meaning. This task had been assumed by the higher institutions of Canada and carried forward by them for three years with extraordinary success. In greater or less measure probably nearly every institution in the United States attempted to perform this service. Two or three especially interesting examples may be mentioned.

The University of Washington, whose president, Henry Suzzallo, was also chairman of the State Council of Defense, organized a group of college and university teachers and teachers in secondary schools, which rendered most effective service in explaining the issues of the war to laborers engaged in war industries. Numerous threatened labor disturbances in the Northwest were thus averted.

The University of North Carolina, which had before the war an especially well organized extension bureau, developed immediately upon the entry of the United States into the war a war-information service. Reports from that State indicate that this was a very effective factor in the development of an intelligent comprehension of America's part in the struggle. The following quotation, from a leaflet issued by the university, gives an outline of this service:

1. **EXTENSION CENTERS.**—Centers may be established in any community upon the application of a properly organized group of students. From one course to six courses given at each center, each course requiring a month for its completion. A member of the university faculty to be sent to the center at the beginning of the course and the remainder of the group meetings directed by him through a local, well-qualified man. The work to be guided by a syllabus, by outlines, and tested by an examination. The courses to form a consistent whole. The courses (by way of example):
 - a. Theories of the State.
 - b. Europe since 1815.
 - c. South American Relations.
 - d. Political Idealism in British and American Literature.
 - e. Economic and Social Aspects of the War.
 - f. The War as Reflected in Recent Literature.
2. **GROUP LECTURES.**—Four or five or more of these lectures or similar lectures more popularly treated and without intensive class study may be arranged as a series by any community (e. g., one a month by a Young Men's Christian Association, or similar organizations).
3. **CORRESPONDENCE COURSES** (with college credit) and **READING COURSES** (without credit) on the subject matter of these extension center courses, using the same syllabus and other material, but in more popular form. A textbook (328 pages), "American Ideals" (Houghton Mifflin & Co.), prepared by two of the professors, is a source book of selections showing through state papers, speeches, etc., the development of American thought, political ideals, etc.
4. **SINGLE LECTURES** on a wide variety of subjects related to the war will be furnished to communities as a part of any other lecture plan they may have for special occasions. A list of lecture subjects and lecturers furnished on application.
5. **READERS' SERVICE.**—This service undertakes to furnish through the university library, the faculty cooperating, information as to books, articles on special subjects relating to the war, furnishing small package libraries of pamphlets on half a dozen important phases of the war and in so far as possible lending books and acting as a distributing agency for putting Government and other publications in the hands of interested readers.
6. **DIRECT PUBLICITY ON WHY WE ARE AT WAR AND WHY THIS IS OUR WAR.**
 - a. Special articles by members of the faculty in journals of education and the like, and special leaflets to be issued by the Extension Service and sent to public school teachers.
 - b. Special editions of the University News Letter (a weekly clip sheet published by the university) devoted to these subjects and sent

- to a special list of people influential in their local communities, but not for the most part readers of the daily press.
- c. Debate subjects and outlines, composition subjects and patriotic programs, for school exercises and celebrations, community gatherings, etc.
7. THE LAFAYETTE ASSOCIATION.—An association—State-wide and Nation-wide, if possible—composed of high-school and grammar-school students, parents, and others interested, called the Lafayette Association to symbolize the ideals to which Lafayette devoted his life and for the purpose of “realizing the infinite power of the public school as the center of the community life of the Nation in the essential task of nourishing, developing, and crystallizing, through expression, the national spirit of present and future America.” A full explanation of the Lafayette Association is given in another leaflet.

It soon became apparent, however, that a central official agency was needed, not only to furnish reliable data to these local institutions, but also to give consistency and point to the scattered efforts of individual bodies. The task fell almost by force of gravity to the Committee on Public Information. This committee recruited the services of the best scholars in the fields of history, economics, and government, and under the leadership of Dean Guy Stanton Ford, of the University of Minnesota, prepared the Red, White and Blue Series of popular monographs on the background and issues of the war.

THE NATIONAL BOARD FOR HISTORICAL SERVICE.

The activities of the National Board for Historical Service may appropriately be counted as one of the contributions made by the universities to the war. The board was organized on April 29, 1917, and established headquarters in Washington. Under the chairmanship of Prof. Evarts B. Greene, of the University of Illinois, it sought to direct the activities of historical scholars into lines of national service. It furnished advice concerning university courses, public lectures, popular articles, and research. Cooperating with the History Teachers' Magazine, it contributed a number of supplements, including documents illustrating the German occupation of Belgium, a selected and annotated bibliography of the war, and a notable topical outline entitled “A Study of the Great War,” prepared by Dr. S. B. Harding. The board was also in close and active cooperation with the Committee on Public Information, especially in the preparation of the War Information Series and the Red, White and Blue Series.

INTERNATIONAL RELATIONS IN HIGHER EDUCATION.

The war has brought about in the United States a great enhancement of interest in every phase of civilization in the allied countries. Especially have the friendly relations which have existed so long

between the universities of this country and those of France and England received added stimulus. In January, 1918, the commissioner for engineering and education of the Advisory Commission of the Council of National Defense issued, with the indorsement of the council, an invitation to university officers of the allied countries to send groups of representatives to America to confer with and to advise the officers of American institutions. The first nation to respond to this invitation was Great Britain. A distinguished mission, representing British universities, landed in New York on the 8th of October. The members of the mission were as follows:

Dr. Arthur Everett Shipley, vice chancellor of the University of Cambridge.
Sir Henry Miers, vice chancellor of the University of Manchester.
Rev. Edward Mewburn Walker, librarian of Queen's College, Oxford.
Sir Henry Jones, professor of moral philosophy, University of Glasgow.
Dr. John Joly, professor of geology and mineralogy, Trinity College, Dublin.
Miss Caroline Spurgeon, professor of English literature, University of London.
Miss Rose Sidgwick, lecturer on history, University of Birmingham.

Arrangements for their entertainment were made by the American Council on Education. After a visit to Washington, where they were received by the President and by the Council of National Defense, they made a tour of a considerable number of universities and colleges east of the Mississippi River. Conferences on important aspects of the question of educational exchanges between the United States and Great Britain were held in Philadelphia, New York, Chicago, Minneapolis, Houston, and Boston. Definite arrangements were made for the mutual recognition of academic credentials, and tentative plans were proposed for the interchange of students and professors.

CHAPTER II.

MEDICAL EDUCATION.

By N. P. COLWELL, M. D.

*Secretary of the Council on Medical Education of the American Medical Association,
Chicago.*

CONTENTS.—Entrance requirements of medical colleges—Coeducation in medicine—Medical education and the war—Medical education and the selective service—A national control of medical education—Improved standards of licensing boards—State requirements of preliminary education—Confusion from multiple boards—Simplifying medical licensure—Practical and clinical examinations—National Board of Medical Examiners—Premedical college work—Need of a list of approved colleges of arts and sciences—Items concerning medical education—Developing medical education in China.

In previous reports attention was called to the rapid improvements in medical education in the United States, secured through a campaign which was begun by the American Medical Association in 1904. At the beginning of the campaign, the number of medical schools in this country exceeded the total in all the rest of the world. There was clearly an oversupply of medical schools. Many of them were poorly equipped and adhered only to low entrance requirements, while some were conducted for profit and required for admission little or nothing in the way of educational qualifications. It was shown that in 1904 only four medical colleges were requiring any college work for admission, and only from 20 per cent to 25 per cent were actually requiring a four-year high-school education. Under the methods pursued, it is not surprising, therefore, that in 1904 the number of medical students reached the amazing total of 28,142, and that in that year 5,747 physicians were graduated.

The campaign for improvement successfully urged the merging of two or more medical colleges in each of our various cities or States. This resulted in a rapid reduction in the total number, but a material strengthening of the quality of the institutions remaining. At the same time higher standards of preliminary education were urged consisting, first, of the four-year high-school education, then one year, and finally two years of premedical college education. In 1916 the two-year entrance standard was made an essential for any medical school to be considered as acceptable by the American Medical Association. In that year 48 colleges had already put into effect

the higher requirement and also 16 State boards had made it the minimum essential of preliminary education of graduates who might seek licenses in those States. Attention was also called to the great improvements in the way of full-time salaried teachers, greatly improved laboratories, the closer relations with teaching hospitals, and the securing of greater endowments.

At the present time there are 90 medical colleges; the number of students during 1917-18 was 13,630, and the number of graduates in 1918 was 2,670.¹ These lower figures represent the normal decrease that was expected under the increased entrance requirements, and are not due to the war. The following tabulation shows the decided increase since 1904 in the number of colleges which have enforced higher entrance requirements and in the number of students and graduates who have held the higher entrance qualifications:

Entrance requirements.	Colleges.				Students.				Graduates.			
	1904		1918		1904		1918		1904		1918	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Four-year high-school education or less ¹	158	97.5	7	7.8	26,391	93.8	631	4.6	5,378	93.6	258	9.7
One year of college work.....	.....	.....	34	37.8	.....	.....	5,944	43.6	.....	.....	1,147	43.0
Two years of college work.....	4	2.5	40	54.4	1,761	6.2	7,055	51.8	369	6.4	1,265	47.3
Total.....	162	.....	90	.....	28,142	.....	13,630	.....	5,747	.....	2,670	.....

¹ It is not probable that in 1904 more than about 30 colleges (20 per cent) were actually requiring a four-year high-school education as a minimum for admission.

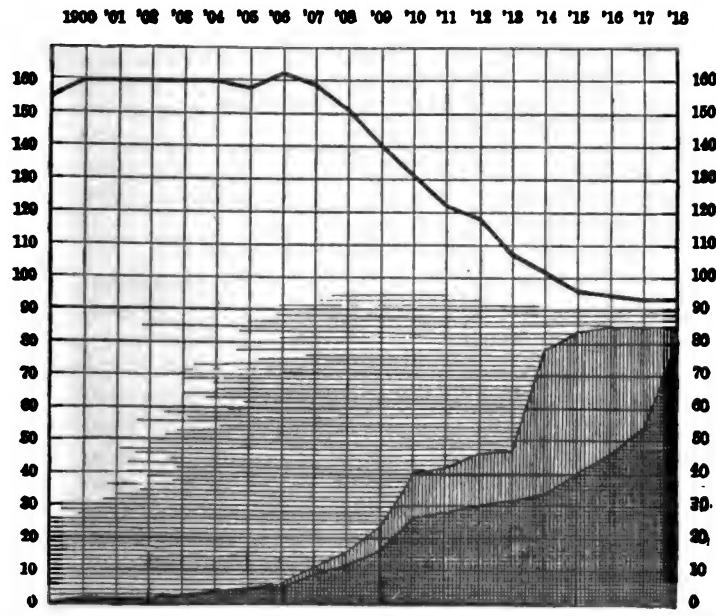
Instead of 4 (2.5 per cent) medical schools which in 1904 required any college work for admission, for the session of 1917-18 83 (92.2 per cent) medical schools required one or two years of such work; instead of only 1,761 (6.2 per cent) students enrolled in the higher standard colleges in 1904, during last year 12,999 (95.3 per cent) students were enrolled in the higher standard colleges; and instead of only 369 (6.4 per cent) graduates who were turned out by the higher standard colleges in 1904, at the end of last session 2,412 (90.3 per cent) graduated from those institutions. The 7 medical schools which still require only a high-school education or less for admission are also inferior in other respects, and are reported as not recognized by from 27 to 38 State licensing boards. The progress in medical education in respect to preliminary requirements is graphically shown in Chart 1. This general adoption by medical schools of the

¹ Altogether 2,807 students successfully completed the courses of the senior year. From 137, however, in the Universities of California and Minnesota and in Rush Medical College, the degrees have been withheld pending the completion of a hospital internship.

two-year standard of preliminary education and the other improvements made have brought medical education in this country to a par with that of leading countries of Europe and elsewhere.

(CHART 1.—*Medical schools and entrance requirements.*)

This chart shows (heavy line at the top) the total number of medical schools existing in the various years. The chart also shows the number of medical schools requiring for admission (horizontal shading, indefinite, estimated) a four-year high-school education; (vertical shading) one year of premedical college work and (heavy shading) two years of premedical college work.



	1900	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18
Totals	100	160	160	160	160	158	152	155	151	140	131	132	118	107	106	96	95	94	
Totals (a)	158	158	158	158	156	156	156	156	156	156	156	156	72	70	64	24	12	10	
Totals (b)																			
Totals (e)	2	2	2	3	4	5	5	9	11	15	17	22	20	21	24	40	37	31	

Requiring for admission (a) a high school education or less; (b) one year of college work; (c) two or more years of college work.

ENTRANCE REQUIREMENTS OF MEDICAL COLLEGES.

Eighty-one medical schools are now requiring, as a minimum for entrance, *two years* or more of work in a college of liberal arts in addition to a four-year high-school education. The years, respectively, when for each college the one-year and the two-year requirements became effective, and the rating of each college, are as follows:

ALABAMA. One year. Two years. College rating.
University of Alabama School of Medicine----- 1914 1915 A

ARKANSAS

University of Arkansas Medical Department----- 1915 1918 B

	CALIFORNIA.	One year.	Two years.	College rating.
College of Medical Evangelists.....		1914	1915	B
University of Southern California Medical Department.....		1914	1916	B
Leland Stanford Junior University School of Medicine.....			1909	A
University of California Medical School.....			1905	A

COLORADO.

University of Colorado School of Medicine.....	1910	A
--	------	---

CONNECTICUT.

Yale University School of Medicine.....	1909	A
---	------	---

DISTRICT OF COLUMBIA.

Georgetown University School of Medicine.....	1912	A
George Washington University Medical School.....	1914	1918
Howard University School of Medicine.....	1910	1914

GEORGIA.

Emory University School of Medicine, Atlanta.....	1914	1918	A
University of Georgia Medical Department.....	1914	1918	A

ILLINOIS.

Chicago College of Medicine and Surgery School of Medicine of Loyola University.....	1915	1918	B
Hahnemann Medical College and Hospital.....	1914	1916	B
Northwestern University Medical School.....	1908	1911	A
Rush Medical College (University of Chicago).....		1904	A
University of Illinois College of Medicine.....	1913	1914	A

INDIANA.

Indiana University School of Medicine.....	1909	1910	A
--	------	------	---

IOWA.

State University of Iowa College of Medicine.....	1909	1910	A
State University of Iowa College of Homeopathic Medicine.....	1910		A

KANSAS.

University of Kansas School of Medicine.....	1909	A
--	------	---

KENTUCKY.

University of Louisville Medical Department.....	1914	1918	A
--	------	------	---

LOUISIANA.

Tulane University of Louisiana School of Medicine.....	1910	1918	A
--	------	------	---

MAINE.

Bowdoin Medical School.....	1912	1916	A
-----------------------------	------	------	---

MARYLAND.

	One year.	Two years.	College rating.
Johns Hopkins University Medical Department	1893		A
University of Maryland School of Medicine and College of Physicians and Surgeons	1914	1918	A

MASSACHUSETTS.

Boston University School of Medicine	1914	1916	A
Medical School of Harvard University		1900	A
Tufts College Medical School	1914	1918	A

MICHIGAN.

Detroit College of Medicine and Surgery	1914	1918	A
University of Michigan Medical School		1909	A
University of Michigan Homeopathic Medical School	1912	1916	A

MINNESOTA.

University of Minnesota Medical School	1907		A
---	------	--	---

MISSISSIPPI.

University of Mississippi School of Medicine	1914	1918	A
---	------	------	---

MISSOURI.

St. Louis University School of Medicine	1910	1918	A
University of Missouri School of Medicine	1906	1910	A
Washington University Medical School	1910	1912	A

NEBRASKA.

John A. Creighton Medical College	1914	1918	A
University of Nebraska College of Medicine	1908	1909	A

NEW HAMPSHIRE.

Dartmouth Medical School	1910		A
---------------------------------	------	--	---

NEW YORK.

Albany Medical College	1914	1918	A
Columbia University College of Physicians and Surgeons	---	1910	A
Cornell University Medical College		1908	A
Fordham University School of Medicine	1911	1918	A
Long Island College Hospital	1914	1918	A
New York Homeo. Med. Coll. and Flower Hospital	1915	1919	B
Syracuse University College of Medicine	1909	1910	A
University and Bellevue Hospital Medical College	1912	1918	A
University of Buffalo Department of Medicine	1914	1918	A

NORTH CAROLINA.

Leonard Medical School	---	1914	B
Wake Forest College, School of Medicine	---	1908	A
University of North Carolina School of Medicine	1910	1917	A

NORTH DAKOTA.

University of North Dakota School of Medicine	---	1907	A
--	-----	------	---

OHIO.	One year.	Two years.	College rating.
Electric Medical College-----	1915	1918	B
Ohio State University College of Medicine-----	1914	1915	A
Ohio State Univ. Coll. of Homeopathic Medicine-----	1915	1916	B
University of Cincinnati College of Medicine-----	1910	1913	A
Western Reserve University School of Medicine-----	1901	1901	A
OKLAHOMA.			
University of Oklahoma School of Medicine-----	1914	1917	B
OREGON.			
University of Oregon Department of Medicine -----	1910	1915	A
PENNSYLVANIA.			
Hahnemann Medical College and Hospital-----	1914	1917	A
Jefferson Medical College-----	1914	1917	A
Temple University Department of Medicine-----	1914	1918	B
University of Pennsylvania School of Medicine-----	1909	1910	A
University of Pittsburgh School of Medicine-----	1911	1913	A
Woman's Medical College of Pennsylvania-----	1914	1915	A
SOUTH CAROLINA.			
Medical College of the State of South Carolina-----	1914	1916	A
SOUTH DAKOTA.			
University of South Dakota College of Medicine-----	1908	1909	A
TENNESSEE.			
Meharry Medical College-----	1914	1918	B
Vanderbilt University Medical Department-----	1914	1918	A
University of Tennessee College of Medicine-----	1914	1918	A
TEXAS.			
Baylor University College of Medicine-----	1913	1918	A
University of Texas Department of Medicine-----	1910	1917	A
UTAH.			
University of Utah School of Medicine-----	1909	1910	A
VERMONT.			
University of Vermont College of Medicine-----	1912	1918	A
VIRGINIA.			
Medical College of Virginia-----	1914	1915	A
University of Virginia Department of Medicine-----	1910	1917	A
WEST VIRGINIA.			
West Virginia University School of Medicine-----	1911	1917	A
WISCONSIN.			
Marquette University School of Medicine-----	1913	1915	A
University of Wisconsin Medical School-----	1907	1907	A

COEDUCATION IN MEDICINE.

The world war has given added impetus to the tendency on the part of medical colleges to throw their doors open to women students. During the last three or four years this action has been taken by several of the largest medical schools in the United States and Canada: In 1914 by the Medical School of the University of Pennsylvania; in 1915 by the Tulane University of Louisiana; in 1916 by the Columbia University College of Physicians and Surgeons; in 1917 by the University and Bellevue Hospital Medical College, by the University of Maryland, and the Medical College of Virginia; and in the present year by Harvard University Medical School and by the Medical Faculty of McGill University. The idea of granting equal opportunities for the two sexes in medical schools, however, had already made rapid advancement before the world war. Over 40 years ago the University of Michigan made its courses in medicine coeducational and practically all State universities have followed the example. From the time of its organization in 1893, the Medical Department of Johns Hopkins University has admitted women students. In New York City the Women's Medical College of the New York Infirmary closed its doors only after Cornell University in 1898 had established its medical school and admitted women students. In 1902 Rush Medical College, which had formed a close affiliation with the University of Chicago, became coeducational. At the present time, therefore, of the 90 colleges existing in the United States 60 admit both sexes.

MEDICAL EDUCATION AND THE WAR.

The reforms in American medical education were largely completed before this country was drawn into the world war. For the past six or seven years the majority of medical schools have not only been enforcing the higher entrance standards but also have been operating under greatly improved conditions in other respects. The majority of students graduating in the past several years, therefore, have received a medical training equal to that obtainable anywhere. Furthermore, it is these recent graduates who, in larger proportions, have entered the Government medical services and who will be largely responsible for the medical care of our American soldiers and sailors. It is evident, therefore, that those fighting for the preservation of America and American ideals now have as skilled medical care as is obtainable anywhere. That this can be said, is due to the energetic campaign to improve medical education that has been carried on during the past 15 years.

The war has affected the supply of physicians for civilian needs, even as it has reduced the supply of those in other technical occu-

pations. Statistics show that this country has one physician to every 739 people, as compared with one to every 1,500 to 2,500 people in the countries of Europe just before the war began. In recent years, however, the demand for medical graduates to fill positions as hospital internes, health officers, medical inspectors, medical teachers, and other positions of responsibility has been greatly increased. This increased demand is due, not to any scarcity of medical graduates, but to the improved qualifications of those now graduating from our medical schools. In earlier years this demand was not so great because few of the graduates then turned out were sufficiently qualified, educationally or professionally, to occupy the positions now open to them. The increase in the demand has been in direct proportion to the improvements in preliminary and medical education.

Even for the army there is a greater demand than in previous times for those of highly technical and special training. Educators are agreed, therefore, that present conditions call for the maintenance of the present entrance requirement of two years of college work; for further improvements in laboratory and clinical equipment; and, particularly, for improved methods of teaching in all medical schools. It is only by maintaining these fair standards that the demand will be supplied, since in the better medical schools, the number of graduates has steadily increased each year for the past five years, and the decrease in the total has been at the expense of the lower-grade colleges.

MEDICAL EDUCATION AND THE SELECTIVE SERVICE.

When the selective-service law was passed in May, 1917, it made no provision for the exemption of medical students. A study of the effect the draft would have on the enrollments of medical schools showed that from 50 to 65 per cent of the students would be taken in the first three calls, which would force the majority of medical schools to suspend. If the war lasted any considerable time, the result would be to seriously diminish or cut off the annual supply of medical graduates; hospitals would be without internes, and there would soon develop a serious shortage of physicians for both military and civilian needs.

The solution to the problem was found in the National Defense Act of 1915, which provided for the Medical Reserve Corps of the Army. Under the provisions of this law medical students were permitted to enroll in the Medical Enlisted Reserve Corps. This made them subject to call at any time should extreme emergency require it. It was the stated policy of the Government, however, to leave these students on an inactive status until they should com-

plete their medical course and secure their hospital training. It was believed that they could render the country a better service by finishing their training and becoming efficient medical officers than by entering at once on active service without that training. The provision for the Medical Enlisted Reserve Corps relieved the uncertainty in regard to the enrollment of medical students, so that medical classes have been retained at a normal status—the only loss being of those students who voluntarily enlisted for military service.

Provision was still necessary, however, for the students in the premedical classes who would arrive at draft age before becoming bona fide medical students. The calling into service of such students would prevent the medical schools from obtaining medical students and would eventually be as serious as if the medical students themselves were called to service. There also arose a serious problem as to medical teachers. Those in the draft age were being called into active service and others were volunteering, even though strong efforts were made to induce them to remain at their teaching duties. It appeared that many of the colleges would have to suspend because of the depletion of the ranks of their teachers.

In an effort to solve these problems, at the call of the Surgeon General, a conference of representatives of medical schools was held in Chicago June 11, 1918. At this conference an advisory committee on medical schools,¹ made up of representatives of medical colleges and licensing boards, was chosen to cooperate with the standing committee on medical education of the Medical Department of the Army, for the prompt solution of such problems as might arise in connection with medical education. At a meeting of the two committees on the day following the Chicago conference, attention was called to the provision made for the Student Army Training Corps, suggesting a solution for the exemption of premedical students. It was also urged that premedical and medical students as well as medical teachers be given Government recognition by being placed in uniform and that the teachers be granted suitable rank.

Another conference of the two committees was held in Washington, July 21, 1918. The arrangements for the Student Army Training Corps had made progress under the War Department's committee on education and special training. Through the Student Army Training Corps it was provided that all students enlisting be retained in

¹This committee consisted of Dr. Ray Lyman Wilbur, president of Leland Stanford University, chairman; Dr. William J. Means, president of the Association of American Medical Colleges; Dr. Samuel W. Lambert, dean of Columbia University College of Physicians and Surgeons; Dr. J. Whitridge Williams, dean of Johns Hopkins University Medical Department; Dr. Theodore Hough, dean of the University of Virginia Department of Medicine; Dr. John M. Baldy, president of the Pennsylvania Bureau of Medical Education and Licensure; and Dr. N. P. Colwell, secretary of the Council on Medical Education of the American Medical Association, secretary.

the colleges until their special training be completed. On arriving at draft age, the student would be required to register under the selective service law. When called by his local board, each student's record would be examined and it would be determined whether he would be called in active service. The stated policy of the Government, however, was that students who were making satisfactory headway in their studies would be retained in college until their training had been completed. The Students' Army Training Corps clearly provided for the training of medical officers as well as of engineers and officers in other special lines. As to the threatened dearth of medical teachers due to losses by enlistment, a solution of the problem was found in the rule providing for the exemption of those engaged in "essential industries." Each college was requested by the Surgeon General to furnish a list of its essential teachers who, it was planned, would not be called to active duty even though they should enlist, but should be left at their teaching duties on the ground that they were engaged in an "essential industry."

A NATIONAL CONTROL OF MEDICAL EDUCATION.

Through the Medical Enlisted Reserve Corps, a large majority of the medical student enrollment throughout the United States has come under the control of the Surgeon General of the United States Army. This control of the student body, coupled with the measures made necessary to retain in each college an adequate corps of medical instructors, brought the medical schools also to a large extent under the same national control. It became necessary, therefore, soon after a state of war was recognized, for the Surgeon General to designate what medical schools were worthy of recognition and to establish rules for the satisfactory conduct of such colleges. Since the legal control of medical education had previously rested solely with State medical licensing boards, it was determined to consider as "well recognized medical schools" those which were recognized by the majority of State licensing boards. Of the 90 medical colleges now existing, 81 are well recognized.

The unusual demand for physicians as medical officers for the tremendous armies being organized made it necessary carefully to ascertain the present supply of physicians, the future annual output which should be maintained from the medical schools, and the educational standards and other measures which should be enforced, at the same time guaranteeing an adequate supply of physicians for civil and military needs. One of the earliest decisions rendered, which has since been adhered to, was that the present reasonable standards of preliminary education, namely, two years of work in an approved college of arts and sciences or its actual equivalent,

should be maintained.¹ In fact, this standard of premedical qualifications was considered sufficiently important that all "well recognized" medical schools were instructed to enforce that requirement of all students admitted on and after October 15, 1918.

Careful consideration has also been given to the question of requiring continuous sessions in medical schools so they might promptly and intelligently be put into effect should the emergency demand it. Looking toward this possibility a few of the medical schools which were properly equipped to do so, have already put that measure into effect.

IMPROVED STANDARDS OF LICENSING BOARDS.

In previous reports reference has been made to the adoption by State licensing boards of higher requirements of preliminary education. A review of the various medical practice acts, published during the present year, shows when any requirement of preliminary education was established in each State, and when, respectively, a four-year high school education or higher standards were adopted. The accompanying chart (Chart 2) shows the progress made during the past 18 years. In 1900, it appears that only six States had made provision for preliminary education in their practice acts and in only one of these was the standard fixed at a four-year high school education or its equivalent. Since 1900, however, progress has indeed been rapid, following closely the progress in entrance requirements of medical colleges. At the beginning of its campaign in 1904, the Council on Medical Education advocated two standards, one for immediate adoption which recommended a four-year high school course and another—the "ideal standard"—which suggested one year of college work including physics, chemistry, and biology. The latter was urged for adoption by January 1, 1908, but the time was extended till January 1, 1910, and was made a requirement for the Class A rating January 1, 1914. The charts show more marked changes in these than in other years. By 1910 the number of States providing for preliminary education had increased to 36, in 28 of which a four-year high school course was required. By 1910 when the Carnegie Foundation for the Advancement of Teaching published its report on medical education, marked improvements had already been made both by medical schools and by State licensing boards, but that report did much to arouse public interest in the campaign for improvement.

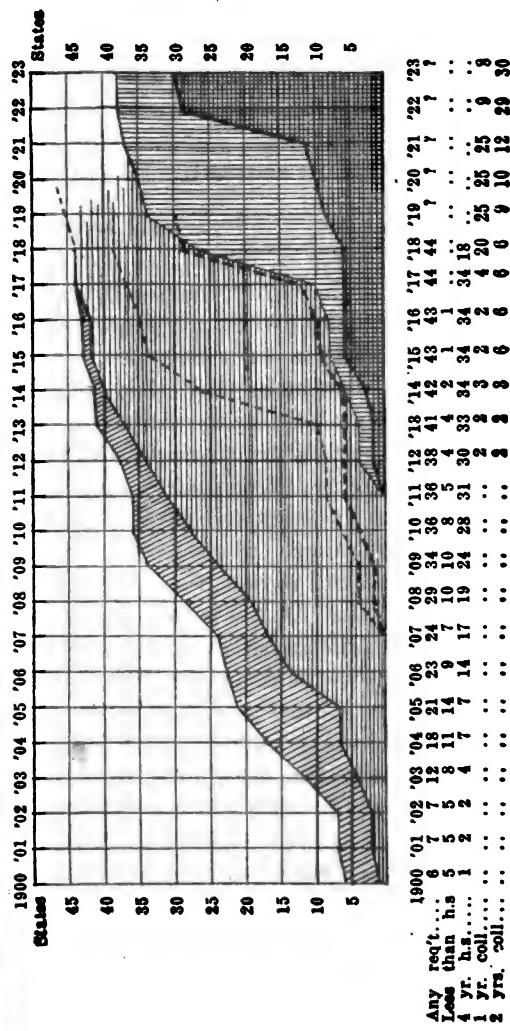
¹To provide against a resulting shortage of medical officers, an intensive course of instruction for admission to the study of medicine was promulgated in October, 1918, by the committee on education and special training of the War Department. This course crowded into four quarters of three months each, or a total of twelve months, a quantity of work equal to that usually requiring six quarters of three months each. The continuation of this course was made unnecessary by the signing of the armistice.

The light and heavy dotted lines indicate the number of boards each successive year which have *adopted* respectively one and two years of collegiate work in addition to a four-year high-school education as the minimum preliminary qualification for the license in those States. The increase in the number of States adopting the higher prelimi-

CHART 2.—State requirements of preliminary education.

As shown by Medical Practice Acts and Board Rules.

Showng, by years, the increased number of States requiring (diagonal shading) any preliminary requirement (horizontal shading); a four-year high school education (vertical shading); one year of college work, and (heavy shading) two years of college work.
The light and heavy dotted lines in the horizontal shading indicate, respectively, when the one-year and the two-year requirements were adopted—when they began to affect *matriculants* in medical schools. The requirements did not affect graduates until four years later, as indicated by the vertical and heavy shading. Each vertical line represents a year as indicated. (Compare this chart with Chart 1.)



nary standards, as indicated by the dotted lines, corresponds quite closely with the increase in the number of medical colleges (see Chart 1) which had put those standards into effect. The dotted lines show when the requirements affected students matriculating in medical colleges; the increased requirements did not become effective for graduates until four years later; hence the portions of the chart

shown by the vertical and the heavy shading indicate for each year the number of States in which, respectively, one year and two years of college work were required of all applicants seeking licenses to practice in those States.

STATE REQUIREMENTS OF PRELIMINARY EDUCATION.

There are now 40 States which have adopted requirements of preliminary education in addition to a standard four-year high-school education. These States, the number of college years required, and the time the higher requirements became or become effective are as follows:

State requirements of preliminary education.

State examining board of—	One year of college work.		Two years of college work.	
	Affects students matriculating.	Affects all graduates.	Affects students matriculating.	Affects all graduates.
Alabama.			1915-16	1919
Alaska.	1914-15	1918	1918-19	1922
Arizona.	1914-15	1918	1918-19	1922
Arkansas.	1915-16	1919	1918-19	1922
California.	1915-16	1919	1918-19	1922
Colorado.	1908-09	1912	1910-11	1914
Connecticut.	1911-12	1915		
Delaware ¹ .				
District of Columbia ² .				
Florida.	1914-15	1918	1918-19	1922
Georgia.			1918-19	1922
Idaho ² .				
Illinois.	1915-16	1919	1918-19	1922
Indiana.	1910-11	1914	1911-12	1915
Iowa.			1911-12	1915
Kansas.	1910-11	1914	1918-19	1922
Kentucky.	1914-15	1918		
Louisiana.	1915-16	1919	1918-19	1922
Maine.	1915-16	1919		
Maryland.	1914-15	1918	1918-19	1922
Massachusetts ² .				
Michigan.	1914-15	1918	1918-19	1922
Minnesota.			1908-09	1912
Mississippi.	1915-16	1919	1919-20	1923
Missouri ¹ .				
Montana.	1914-15	1918	1918-19	1922
Nebraska ¹ .				
Nevada ² .				
New Hampshire.	1914-15	1918	1915-16	1919
New Jersey.	1915-16	1919	1916-17	1920
New Mexico.	1914-15	1918	1918-19	1922
New York.	1917-18	1921	1918-19	1922
North Carolina.	1914-15	1918	1918-19	1922
North Dakota.			1908-09	1912
Ohio ¹ .				
Oklahoma.	1914-15	1918	1917-18	1921
Oregon ² .				
Pennsylvania.	1914-15	1918		
Rhode Island.	1914-15	1918	1918-19	1922
South Carolina.			1916-17	1920
South Dakota.	1908-09	1912	1911-12	1915
Tennessee.	1916-17	1920	1918-19	1922
Texas.	1914-15	1918		
Utah.	1912-14	1917		
Vermont.	1912-14	1917	1918-19	1922
Virginia.	1914-15	1918	1917-18	1921
Washington.	1914-15	1918	1918-19	1922
West Virginia.	1917-18	1921		
Wisconsin.			1915-16	1919
Wyoming ² .				

¹Require a four-year high-school education or its equivalent.

²No fixed standard.

CONFUSION FROM MULTIPLE BOARDS.

Besides the increase in the standards of preliminary education already referred to, much progress has been made by medical licensing boards during the last 18 years. In regulating the practice of the healing art, however, much confusion exists in some States because the authority to license those who are to treat the sick has been divided between two or more separate and independent boards. After excellent practice acts have been adopted, providing for fair standards of preliminary and medical education in these States, other laws are passed allowing certain groups of practitioners to secure licenses on lower educational standards. Some of these laws were secured through the misapprehension on the part of legislators regarding the first essential for the practice of the healing art, namely, the necessity of making a diagnosis, which implies a thorough training in the fundamentals of medicine. It is evident that unless a practitioner knows the difference between normal and abnormal conditions and unless he knows what particular disorder the patient is suffering from he is not in position to apply any kind of treatment. The plea of certain healers that they were "not practicing medicine" led to the adoption of special laws providing for the licensing of such practitioners under lower educational qualifications than were required of physicians, although in some States they were granted full authority to practice as physicians. Some of these laws provided for special boards without mentioning educational standards; others provided for lower educational requirements, while still other laws (or amendments) merely exempted these practitioners from the requirements of the medical practice act. So many different boards have been established that at present in the 50 States, including Alaska and the District of Columbia, there are 94 separate and distinct boards having to do with licensing those who are to treat the sick! There are 20 States which are fortunate in having only one board each—the State medical board. Including both medical boards and boards representing various "systems" of healing, there are 19 States having 2 boards each; 7 having 3 boards; 2 having 4 boards each, and 1 State—Arkansas—having 6 different boards. It can be seen at once that with the authority so divided it is impossible to provide efficient protection of the public against uneducated and incompetent practitioners of the healing art.

SIMPLIFYING MEDICAL LICENSURE.

State governments, however, are now trying to avoid a multiplicity of boards and at the same time to guarantee that all who are to treat the sick shall have secured an adequate education. Several States,

by legislation, during the past few years, have placed the licensing of all practitioners under a single medical board. Some States demand that all practitioners alike be required to possess the minimum educational qualifications, after which they are given a physician's license and may practice as they please. The most recent scheme in the licensing of those who are to treat the sick is that adopted in Illinois, through the new consolidation law. The Department of Registration and Education in Illinois has in charge not only the licensing of physicians and other practitioners of the healing art, but also dentists, pharmacists, midwives, and those in other licensed occupations. More encouraging, however, is the fact that the enforcement of the new law in Illinois has been placed in the hands of educators of unquestioned ability. It is noteworthy that even poor laws administered by able men bring better results than the best laws administered by inefficient men. The chief point to be considered in measures similar to that adopted in Illinois is to see that, to enforce the laws, those are appointed who will keep in close touch with the progress and needs of general and medical education.

PRACTICAL AND CLINICAL EXAMINATIONS.

There has been much improvement in the character of the licensing examination in some States. A larger number of States have established an efficient examination (including practical laboratory and clinical tests) of those who are to practice the healing art, and in this way they are better protecting the public from ignorance and incompetence. Educational and technical efficiency can not be accurately measured by a written examination alone. A student's fitness to intelligently diagnose and treat human disorders can be brought out only by testing his ability to differentiate between normal and abnormal conditions, in the laboratory as well as at the bedside.

An agency has recently been established—the National Board of Medical Examiners—which has been demonstrating how these practical and clinical examinations should be conducted. This board is now holding its examinations at frequent intervals in prominent hospitals in various large cities throughout the country, and members of State boards have been invited to attend them. The spirit and purpose of the examinations, as well as the ease and facility with which they are conducted, are so evident, that State board members will doubtless be encouraged to adopt them in the regular examination for licensing physicians.

NATIONAL BOARD OF MEDICAL EXAMINERS.

The National Board of Medical Examiners, just referred to, was organized in 1915. It consists of 15 members, including the Surgeon Generals of the Army, Navy, and Public Health Services, and one other representative of each of those services; three representatives of the State medical licensing boards, and six members appointed at large. Its establishment on a high plane was made possible by the Carnegie Foundation for the Advancement of Teaching, which made an appropriation of \$15,000 per year to cover the expenses of the board until such time as it might be placed on a self-supporting basis.

Six examinations have been held by the board, the first and second at Washington, respectively, in October, 1916, and in June, 1917; the third at Chicago in October, 1917; the fourth at New York City in January, 1918; and the fifth at Fort Oglethorpe, Ga., and Fort Riley, Kans., in April, 1918. At these five examinations altogether 93 applicants were examined, of whom 72 passed and 21 failed, the percentage of failures being 22.6 per cent.

Date of examination.	Where held.	Total examined.	Passed.	Failed.	Percentage failed.
October, 1916.....	Washington.....	10	5	5	50
June, 1917.....	Washington.....	12	9	3	33.3
October, 1917.....	Chicago.....	28	22	6	21.5
January, 1918.....	New York.....	20	18	2	10
April, 1918.....	{Fort Oglethorpe..... {Fort Riley.....}	23	18	5	21.7
Total.....		93	72	21	22.6

The educational requirements of applicants are: (a) A four-year high-school course; (b) two years of acceptable college work, including courses in physics, chemistry, biology, and a modern language; (c) graduation from a medical school rated in Class A by the American Medical Association; and (d) a year spent in an acceptable hospital as an interne or in a laboratory. These requirements apply to graduates of medical schools in 1912 and thereafter. The board may accept equivalent credentials of applicants who graduated prior to 1912. Credentials must be presented to the board prior to the examination sufficiently early to permit investigation. The only fee is \$5 for registration. There is no examination fee.

This board is a voluntary organization, its object being to conduct examinations of physicians so thorough as to prove without a doubt their qualifications for the practice of medicine. The value of its certificate, aside from being a qualification of merit, depends on the recognition given to it by State medical licensing boards. Such recognition has already been given, or assured, by the licensing boards of the 12 following States: Colorado, Delaware, Florida, Idaho, Ken-

tucky, Maryland, New Hampshire, North Carolina, North Dakota, Pennsylvania, Rhode Island, Vermont.

When the permanency of the national board is established and the high character of its examinations is more generally recognized, its certificates will doubtless be recognized by the licensing boards of a larger number, if not all States. It will also furnish a credential by which reciprocity in medical licensure with other countries may be established. A successful applicant may enter the regular medical corps of either the Army or Navy without further professional examinations if his papers are passed and are satisfactory to a board of examiners of those services.

PREMEDICAL COLLEGE WORK.

Since, in 1916, two years of work in an "approved" college had been so generally adopted as a minimum educational requirement for admission to medical schools in the United States, it became important to prepare a schedule of the subjects taught in the first two years of recognized colleges which would best prepare the student for his subsequent medical work. A circular letter was sent out by the Council on Medical Education to presidents of one hundred or more of the leading universities, as well as to registrars and university examiners, who were skilled in the evaluation of credentials of work done in various educational institutions. In this way an abundance of data was collected. A special committee was appointed to study the problem and to develop a schedule of required and elective subjects which make up the 60 semester hours required, and to have this schedule conform as nearly as possible with the regular curricula of colleges of arts and sciences. The committee which was selected and began the work in 1916 and was ratified by the council in February, 1917, is as follows:

Dr. Kendrick C. Babcock, Urbana, Ill., chairman, formerly specialist in higher education of the United States Bureau of Education; now dean of the college of liberal arts and sciences of the University of Illinois and intimately identified with the work of the North Central Association of Colleges and Secondary Schools and the Association of American Universities in standardizing colleges of arts and sciences.

Prof. George Galley Chambers, director of admissions, University of Pennsylvania, Philadelphia, representing the Association of American Universities.

Dr. W. F. R. Phillips, professor of anatomy of the Medical College of the State of South Carolina, Charleston, representing the Association of American Medical Colleges.

Dr. Theodore Hough, dean of the University of Virginia Department of Medicine, Charlottesville.

Dr. N. P. Colwell, secretary of the Council on Medical Education of the American Medical Association, Chicago.

A preliminary report of this committee was prepared and published in August, 1917. It was presented for discussion at the annual

congress on medical education and licensure which was held in Chicago in February, 1918, following which the committee completed this report which, as finally adopted, is as follows:

I. HIGH-SCHOOL REQUIREMENTS.

(a) For admission to the two-year premedical college course, students shall have completed a four-year course of at least 14 units (15 after Jan. 1, 1920) in a standard accredited high school or other institution of standard secondary school grade, or have the equivalent as demonstrated by examinations conducted by the College Entrance Examination Board, or by the authorized examiner of a standard college or university which has been approved by the Council on Medical Education. Unless all the entrance units are obtained by examination, a detailed statement of attendance at the secondary school, and a transcript of the student's work, should be kept on file by the college authorities. This evidence of actual attendance at the secondary schools should be obtained, no matter whether the student is admitted to the freshman or to higher classes.

(b) Credits for admission to the premedical college course may be granted for the subjects shown in the following list and for any other subject counted by a standard accredited high school as a part of the requirements for its diploma, provided that at least 11 units must be offered in Groups I-V:

Schedule of subjects required or accepted for entrance to the premedical college course.

Subjects.	Units.	Required.
GROUP I, ENGLISH—		
Literature and composition-----	3-4	3
GROUP II, FOREIGN LANGUAGES—		
Latin-----	1-4	
Greek-----	1-3	
French or German-----	1-4	
Other foreign languages-----	1-4	2
GROUP III, MATHEMATICS—		
Elementary algebra-----	1	1
Advanced algebra-----	½-1	---
Plane geometry-----	1	1
Solid geometry-----	½	---
Trigonometry-----	½	---
GROUP IV, HISTORY—		
Ancient history-----	½-1	
Medieval and modern history-----	½-1	
English history-----	½-1	1
American history-----	½-1	
Civil government-----	½-1	
GROUP V, SCIENCE—		
Botany-----	½-1	---
Zoology-----	½-1	---
Chemistry-----	1	---
Physics-----	1	---
Physiography-----	½-1	---
Physiology-----	½-1	---
Astronomy-----	½	---
Geology-----	½-1	---

Subjects.	Units.	Required.
GROUP VI. MISCELLANEOUS—		
Agriculture.....	1-2	---
Bookkeeping.....	½-1	---
Business law.....	½	---
Commercial geography.....	½-1	---
Domestic science.....	1-2	---
Drawing, freehand and mechanical.....	½-2	---
Economics and economic history.....	½-1	---
Manual training.....	1-2	---
Music: Appreciation or harmony.....	1-2	---

NOTE.—A unit is the credit value of at least 36 weeks' work of four or five recitation periods per week, each recitation period to be not less than 40 minutes. In other words, a unit represents a year's study in any subject in a secondary school constituting approximately a quarter of a full year's work. A satisfactory year's work in any subject can not be accomplished under ordinary circumstances in less than 120 sixty-minute hours or their equivalent.

Both of the required units of foreign language must be of the same language, but the two units may be presented in any one of the languages specified.

Of the 14 units of high-school work (15 after Jan. 1, 1920), 8 units are required, as indicated in the foregoing schedule; the balance may be made up from any of the other subjects in the schedule.

II. PREMEDICAL COLLEGE COURSE.

(c) Beginning January 1, 1918, the minimum requirement for admission to acceptable medical schools, in addition to the high-school work specified above, will be 60 semester hours of collegiate work, extending through two years, of 32 weeks each, exclusive of holidays, in a college approved by the council on medical education. The subjects included in the two years of college work should be in accordance with the following schedule:

Schedule of subjects of the two-year premedical college course.

(Sixty semester hours required.)

	Semester hours.
Required subjects:	
Chemistry (a).....	12
Physics (b).....	8
Biology (c).....	8
English composition and literature (d).....	6
Other nonscience subjects (e).....	12
Subjects strongly urged:	
French or German (f).....	6-12
Advanced botany or advanced zoology.....	3- 6
Psychology.....	3- 6
Advanced mathematics, including algebra and trigonometry.....	3- 6
Additional courses in chemistry.....	3- 6

Other suggested electives:

English (additional), economics, history, sociology, political science, logic, mathematics, Latin, Greek, drawing.

Note.—A semester hour is the credit value of 16 weeks' work consisting of one lecture or recitation period per week, each period to be not less than 50 minutes net, at least 2 hours of laboratory work to be considered as the equivalent of one lecture or recitation period.

SUGGESTIONS REGARDING INDIVIDUAL SUBJECTS.

(a) *Chemistry*.—Twelve semester hours required (eight until January 1, 1920) of which at least eight semester hours must be in general inorganic chemistry, including four semester hours of laboratory work. In the interpretation of this rule work in qualitative analysis may be counted as general inorganic chemistry. The remaining four semester hours (required after January 1, 1920) may consist of additional work in general chemistry or of work in analytic or organic chemistry.

(b) *Physics*.—Eight semester hours required, of which at least two must be laboratory work. It is urged that this course be preceded by a course in trigonometry. This requirement may be satisfied by six semester hours of college physics, of which two must be laboratory work, if preceded by a year (one unit) of high-school physics.

(c) *Biology*.—Eight semester hours required, of which four must consist of laboratory work. This requirement may be satisfied by a course of eight semester hours in either general biology or zoology, or by courses of four semester hours each in zoology and botany, but not by botany alone. The requirement may also be satisfied by six semester hours of college biology or zoology, of which three should be devoted to laboratory work if preceded by a year (one unit) of high-school biology or zoology.

(d) *English composition and literature*.—The usual introductory college course of six semester hours, or its equivalent, is required.

(e) *Nonscience subjects*.—Of the 60 semester hours required as the measurement of 2 years of college work, at least 18, including the 6 semester hours in English, should be in subjects other than the physical, chemical, or biologic sciences.

(f) *French or German*.—A reading knowledge of one of these languages is strongly urged. If the reading knowledge in one of these languages is obtained on the basis of high-school work, the student is urged to take the other language in his college course. It is not considered advisable, however, to spend more than 12 of the required 60 semester hours on foreign languages. In case a reading knowledge of one language is obtained by 6 semester hours of college work another 6 semester hours may be well spent in taking the beginner's course in the other language. If this is followed up by a systematic reading of scientific prose a reading knowledge of the second language may be readily acquired. When a student spends more than two years in college he may well spend 12 semester hours of his college work in the second language.

NEED OF A LIST OF APPROVED COLLEGES OF ARTS AND SCIENCES.

The most imperative present need in medical education in the United States is a reliable list of colleges of arts and sciences which has been approved by some competent standardizing agency. This

is especially needed if the present standards of education preliminary to the study of medicine are to be properly enforced. There are a thousand or more institutions in this country bearing the name of "college" or "university" which vary widely in their entrance standards; in the number and character of their teachers; and in the quantity and quality of their instruction. They range from the highest educational institutions to be found in any country down to the institutions which are entirely lacking in educational merit or which may be actually engaged in the sale of diplomas. Prospective college students at present have no reliable list to guide them in the selection of a college. They are frequently at the mercy of those who insert pretentious advertisements in popular magazines or flood the mails with circulars setting forth in glowing terms the merits of their respective schools when, as a matter of fact, such schools may have no moral right to be referred to as educational institutions.

Lists of approved colleges have been established by two prominent educational organizations—the Association of American Universities and the North Central Association of Colleges and Preparatory Schools which are fairly reliable so far as they go. The former association, however, has not taken into consideration a large number of colleges and "junior colleges" which are in position to furnish a satisfactory training in the subjects included in the first two years of college work. The latter does include such institutions, but, unfortunately, its jurisdiction covers only 17 States. The Association of Colleges and Preparatory Schools of the Southern States, which covers 14 other States, requires a minimum standard of the colleges in membership and is about to establish a list of approved colleges similar to that of the North Central Association. Then its list of approved colleges will doubtless include a much larger number than are at present indicated in its membership. There is need of reliable standardizing agencies which will establish lists of approved colleges in 7 Western States and in 10 North Atlantic¹ and New England States. It is hoped that such agencies will soon be inaugurated, that all the agencies will be affiliated or merged so as to establish uniformity of standards, and that a nation-wide list of approved colleges may be established. In the investigations to be made hereafter by all these standardizing agencies, in the interest of a better medical education, it is hoped that special attention will be given to the equipment and facilities available for the teaching of the essential premedical sciences, physics, chemistry, and biology, including both didactic and laboratory instruction.

¹ It is announced that the Association of Colleges and Preparatory Schools of the Middle States and Maryland has decided to establish a list of the approved colleges and junior colleges located in that district.

ITEMS CONCERNING MEDICAL EDUCATION.

Arkansas.—The new Isaac Folsom Clinic, clinical building of the University of Arkansas Medical Department, has been completed at a cost of \$35,000. The old medical school building is being equipped as an isolation hospital at a cost of \$6,000, this sum having been appropriated for the purpose by the State.

California.—The College of Physicians and Surgeons, Medical Department of the University of Southern California, Los Angeles, will require the hospital interne year for all students entering during 1918-19 and thereafter.

The College of Medical Evangelists during the last 12 months has established its clinical department in Los Angeles. A city block has been purchased on which five buildings including a 75-bed hospital, a dispensary, two dormitories, and a hydrotherapy building have been completed at a cost of approximately \$100,000.

A school for the intensive training of medical officers for the United States Army was established in San Francisco, March 15, 1918, under the direction of the medical faculties of the University of California and Stanford University.

Colorado.—The Colorado Legislature voted a special appropriation of \$150,000 a year for the next 10 years to be used on buildings for the University of Colorado. The school of medicine will secure new buildings from this fund.

Connecticut.—During the past year Yale University has secured an endowment of \$2,500,000 for placing the departments of medicine, surgery, obstetrics, and gynecology on a full-time clinical basis. A contract with the New Haven General Hospital gives the medical school complete control of the public wards.

Yale University School of Medicine is doing its part in solving problems connected with the war. Its departments of physiology, pathologic chemistry and pathology, particularly, have been aiding the Government in providing gas masks for the American troops and in conducting experiments leading to the reduction of fatalities from gas warfare.

Georgia.—Emory University School of Medicine has received \$5,000 by the will of J. B. White, Augusta, to establish a camp for the treatment of tuberculosis.

Illinois.—University of Illinois College of Medicine, Chicago, has adopted the quadramester system by which each 12 months is divided into terms of four months each. Under this arrangement students may begin the study of medicine at the beginning of any one of the three terms.

Indiana.—The Indiana University School of Medicine is erecting a new medical building on the property adjoining the Robert W.

Long Hospital, Indianapolis, at an approximate cost of \$400,000. The new building will consist of four or five stories and be of material harmonizing with the hospital buildings. About \$150,000 of this sum will be realized from the sale of the old medical building.

Maryland.—The Maryland Legislature, at its recent session, appropriated \$25,000 annually for two years for the University of Maryland Medical School. The medical school has received as a gift the medical library and surgical instruments of the late Dr. Charles F. Bevan. The medical school has also voted to admit women students.

Johns Hopkins Hospital has received \$100,000 from the will of Jennie Gillender and \$300,000 from the estate of James Buchanan Brady.

Massachusetts.—Harvard Medical School has voted to admit women students. This has been due to the heavy draft of the war on the medical profession.

Boston University School of Medicine announces that it has become nonsectarian and will offer courses in regular *materia medica*, therapeutics, and practice.

Michigan.—The Detroit College of Medicine and Surgery has been taken over by the city of Detroit and placed under the control of the board of education. It will hereafter be maintained as a municipal institution.

Minnesota.—A Navy Hospital Corps Training School has been established in connection with the University of Minnesota Medical School. It was formerly opened on October 29, 1917, with an initial attendance of 100 men.

Nebraska.—The University Hospital, erected on the campus of the College of Medicine of the University of Nebraska, was formerly opened in October, 1917. It consists of 120 beds and was erected at a total cost, for the building and equipment, of \$210,000. A new library building, an exact duplicate of the present library unit, is being erected on the medical campus which will house the department of physiology, pharmacology, and biochemistry. The funds were provided by the legislature which also appropriated \$100,000 for maintenance for two years.

New York.—Columbia University College of Physicians and Surgeons has added a fifth clinical year to the medical course to be required of all students matriculating in and after September, 1918. The college has also opened its doors to women students. This was made possible by a gift of \$50,000 from George W. Breckenridge, San Antonio, Tex., and a gift of \$5,000 from an association of women physicians, and \$18,000 from other donations. A new building for the use of women students will be erected and additional laboratories provided.

Cornell University Medical College has established a clinic for the functional reeducation of disabled soldiers, sailors, and civilians. This constitutes practically a new branch of medicine.

Long Island College Hospital, Brooklyn, has received \$265,000 from the estate of Charles W. West.

University of Buffalo Medical Department has begun a campaign for funds for a new medical building and laboratories. A gift of \$10,000 has been obtained to go toward current expenses for the year.

Ohio.—University of Cincinnati College of Medicine formally dedicated its new medical college building on March 25, 1918. Subscriptions were raised for this building aggregating \$555,000.

On January 1, 1918, under the new charter for Cincinnati, all of the medical and scientific nursing work of the Cincinnati General Hospital was placed under the direction of the University of Cincinnati. The staff will be made up of members of the medical school faculty and secures for teaching purposes the facilities of the hospital.

Oklahoma.—The legislature appropriated \$200,000 for a State hospital at Oklahoma City, to be under the control of the Oklahoma University School of Medicine. The building is rapidly approaching completion. The school of medicine has completed a new chemistry building at Norman, which has now been completed at a cost of \$33,000.

Oregon.—The University of Oregon Medical School dedicated Mackenzie Hall, the first unit of the new group of medical buildings, on May 1, 1918. The building was erected at a cost of \$117,000. It is on the new campus of 21 acres which provides space not only for other medical school buildings, but also for hospital sites.

Pennsylvania.—The University of Pennsylvania has received \$50,000 from the will of Dr. William C. Goodell. The board of review has awarded damages of \$714,000 to the University of Pennsylvania for the old Medico-Chirurgical College and Hospital property taken by the city. The Medico-Chirurgical property had been transferred to the University of Pennsylvania with the merger two years ago.

The University of Pittsburgh School of Medicine is receiving \$100 annually from the Pennsylvania Association for the Blind to be used as a prize to the member of the senior class who writes the best essay on the prevention of blindness.

Tennessee.—Meharry Medical College dedicated the new Anderson Anatomical Hall on October 19, 1917. The \$10,000 used in its erection was the gift of Dr. John W. Anderson, of Dallas, Tex.

Texas.—During 1917 an attempt by Gov. Ferugson to secure political control of the University of Texas and its medical department

aroused a vigorous protest. A special session of the legislature was called; Gov. Ferguson was impeached; an appropriation of \$1,629,407.17 for the university, including \$197,500 for the medical department, which Gov. Ferguson had vetoed, was again passed; and three regents of the university named by Gov. Ferguson were replaced by those selected in the interests of the university.

Virginia.—The Medical College of Virginia has voted to admit women students. A new three-story hospital building is to be erected as a part of the new group of buildings for the Memorial Hospital. This first building will cost about \$40,000 and will be used for contagious diseases. The money was donated by Maj. James H. Dooley.

Wisconsin.—The University of Wisconsin has received gifts amounting to \$100,000, which, with an appropriation of \$50,000 from the legislature of 1917, will be used to construct a new infirmary for the medical school.

Marquette University School of Medicine is conducting a campaign to raise \$1,000,000 for endowment. Andrew Carnegie has agreed to give one-third of this sum provided the university raises the balance. The first evening of the campaign \$175,000 was raised. A gift of 1,000 volumes to be added to the library has been received from the late John L. C. Cronyn, of Buffalo.

DEVELOPING MEDICAL EDUCATION IN CHINA.

In the spring of 1914, the China Medical Commission, representing the Rockefeller Foundation, was sent to China "to inquire into the condition of medical education, hospitals, and public health in China." This commission recommended Peking as the place where the first medical educational work should be organized. The China Medical Board was then organized, which took over the property of the Peking Union Medical College. The terms of the transfer provided for a board of trustees consisting of 18 members, one to be appointed by each of the six missionary organizations previously maintaining the college, and seven by the China Medical Board. Full support of the college was assumed by the China Medical Board on July 1, 1915.

The Peking Union Medical College was founded early in 1906 by various American and English boards of missions, following the Boxer outbreak. Substantial contributions toward the building fund were obtained from the Empress Dowager of China. The Chinese language was the medium of instruction. The college rendered valuable service in 1910-11 in connection with the serious outbreak of pneumonia and the epidemic of the plague. As a result of their work three members of the college staff were decorated with the Order of the Double Dragon. The college staff also rendered valu-

able military surgical work with the Imperial forces during the revolution of 1911.

The announcement of the new Peking Union Medical College, Peking, China, for the session of 1918-19, has recently been sent out. It contains a perspective view of the new medical school and its group of hospital buildings. These, when completed, will consist of 17 buildings, connected by covered corridors, and will occupy the space of about four city blocks. All but four of these buildings and two prospective wings of the medical school have already been completed. A premedical school was opened in September, 1917, and the medical school will be open for students in September, 1919. Graduation from an approved middle school of China, or its equivalent, in addition to 108 credit (semester) hours of college work, is required for admission. The premedical work includes courses in English, Chinese language and literature, algebra through quadratics, plane geometry, biology, chemistry, physics, Chinese and universal history, and drawing. The teaching year begins September 17 and will end June 20 of the following year. The announcement contains floor plans of the various college and hospital buildings.

CHAPTER III.

ENGINEERING EDUCATION.

By F. L. BISHOP,

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Engineering schools in common with other educational institutions have been confronted with many unique problems since the outbreak of the European War in 1914. Previous to that time an increasing number of men who entered colleges and universities elected subjects pertaining to commerce, business management, finances, etc. The growth of the schools of commerce, both as regards the number of such schools and the attendance in them, is a striking proof of this tendency. During the same period the attendance at engineering schools had in most cases decreased with the resulting decrease in new equipment, faculties, etc. This is partly accounted for by the financial crisis of 1907 but is undoubtedly due largely to the fact that the opportunities offered college graduates in purely commercial pursuits were greater than those in purely industrial work where the demand is for men having a high degree of engineering skill and a wide knowledge of applied science.

With the demand on American manufacturers for war supplies for the Allies, there developed a need for a very large number of scientifically and technically trained men for use in designing new machinery, developing new processes, etc. It was then the country realized that the number of men who had been trained in applied science was woefully small in comparison with the population of the country and the magnitude of its industries. Even before this time the engineering graduate received numerous bids for his services. In spite of this the idea was prevalent that the supply of engineering graduates exceeded the demand.

The increasing number of mechanical appliances developed as a result of the European War, necessitating an increased number of trained men in applied sciences, immediately reacted upon the engineering schools in two ways,—first, the number of men entering engineering schools increased materially, and second, the professors and instructors in these schools were in demand by the industries at salaries which it was impossible for educational institutions to meet. For the latter cause many of the teachers left the engineering schools and their places had to be taken in most cases by inexpe-

rienced teachers and almost without exception by men with less technical ability than those who had left.

This movement of engineering teachers was further accelerated when the United States declared war on Germany, due to the fact that many members of engineering faculties were called into active service as members of the Officers' Reserve Corps and the Enlisted Reserve Corps of the United States Army.

No better tribute can be paid the personnel of the teachers in engineering schools than their immediate response to their country's call.

The entrance of the United States into the war affected the student body in two ways—first, an increased attendance in the freshman class; the second and most striking was the large number of students who immediately volunteered in the various branches of the service.

This depletion of the student body of engineering schools through its members volunteering for active service in various branches of the Army and Navy was a matter of grave concern not only in educational institutions and the industries, but also to the War Department.

It had been recognized from the very beginning of the war, not only by the Secretary of War but by other officials in Washington, that the successful outcome of the war for the Allies was dependent upon the services of technically trained men. If the war were to last a year or perhaps two, all were agreed that every student should do his part by dropping his school work temporarily, but if the war was to be of longer duration, then it would become absolutely necessary for engineering students to continue in school to complete their courses in order that an adequate supply of such men should be available during the war and for the reconstruction period which must of necessity follow.

The matter became so pressing that it was taken up by the Council of National Defense and a committee on engineering education was appointed by Dr. Hollis Godfrey, a member of the advisory commission of the Council of National Defense under whose general direction came all matters pertaining to education. The members of this committee were Charles S. Howe, president, Case School of Applied Science; Milo S. Ketchum, dean of the college of engineering, University of Colorado; C. R. Mann, Carnegie Foundation for the Advancement of Teaching; S. P. Capen, specialist in higher education, United States Bureau of Education; and F. L. Bishop, dean, school of engineering, University of Pittsburgh.

This committee, cooperating with the national engineering societies, the special war committee of the Society for the Promotion of Engineering Education and other organizations, presented the matter to the Secretary of War, who modified the Selective Service

Regulations. On December 19, 1917, the following regulation became effective:

Under such regulations as the Chief of Engineers may prescribe, a proportion of the students, as named by the school faculty, pursuing an engineering course in one of the approved technical engineering schools listed in the War Department may enlist in the enlisted reserve corps of the Engineer Department, and thereafter, upon presentation by the registrant to his local board of a certificate of enlistment, such certificate shall be filed with the questionnaire and the registrant shall be placed in Class V, on the ground that he is in the military service of the United States.

This regulation permitted students to enlist in the Engineers' Enlisted Reserve Corps and to remain in school until they completed their courses. It remained in force until superseded by the establishment of section A, Student Army Training Corps, and tended very materially to stabilize the student body in engineering schools, thus providing properly trained men not only for the War Department, but also for the industries.

The war also had a decided effect upon the curricula of engineering schools. While educational institutions, as a rule, are very conservative and slow in making changes in material and methods of instruction, the engineering schools responded quickly to the many new factors which were developed by the war, and important changes in the curriculum were put in force. Most of these changes had to do with methods of instruction of specific subjects, such as mathematics, thermodynamics, etc. There were, however, two general changes which might well be mentioned at this time. These were the applications of economic principles to the industries and some form of cooperative system by which the student secures actual engineering experience before graduation.

The most universal of these is the greater attention which is given to the application of economic principles to industries, engineering research, and the discussion of the problems of sociology sometimes placed under the broad title of human engineering. Formerly the engineer was supposed to deal only with the material and forces of nature, but recently an entirely new factor has entered—i. e., the human factor—and, in many cases, this is the all-controlling element with which the engineer must deal. Hence it becomes increasingly important to teach the prospective engineer as much as possible concerning the fundamental problems of psychology, sociology, etc.

It has also been demonstrated that the engineering student must during his course secure the fundamental knowledge of the engineering profession through actual practice in engineering work in the industries if he is to grasp properly the instructional work as given in the school. This has led to the adoption of the so-called cooperative system by which the student spends a portion of his time in the industries under the supervision of the faculty of the school in

which he is enrolled. This differs very decidedly from the old process in which the student worked summers at any kind of a job which he might select in any place without supervision. This cooperative work was discussed by Dr. Mann in the annual report of the Commissioner of Education for 1916.

As a result of the war courses, some teachers discovered for the first time that students will study and work if they are interested. The tendency for the engineering student to become so absorbed in his work as to neglect the college social and athletic activities has been of long standing, and during the past few years has been much discussed with beneficial results. When this tendency is properly controlled and directed it provides the incentive by which a young man may be trained mentally without detriment to his social development while in college. Scholarship is not incompatible with breadth of view or a desire to take a normal part in college activities. In fact, the latter ought to be so regulated that sound scholarship would be essential to participation in them. Those who had the opportunity of becoming acquainted with the kind of men who were required to fill the responsible positions in the world war were able to appreciate the fact that sound scholarship was an essential prerequisite for their participation in the war work.

The discussion of the changes in curriculum brought about by the war tended to emphasize the different criticisms which have been expressed in regard to engineering education and engineering schools for a considerable period of time. It is felt by many that these schools were producing well-trained men for certain highly technical phases of engineering, but were failing to produce an all-round engineer required for the proper development of the resources of the country. This discussion lead even as far back as 1907 to the appointment of a joint committee on engineering education. The report of this committee, which has become available during the past year, is the result of several years of investigation of engineering schools by Dr. C. R. Mann, of the Carnegie Foundation for the Advancement of Teaching. The report undoubtedly marks an epoch in engineering education because it embodies not only the investigation of a single able investigator, but the result of Dr. Mann's investigation has been discussed repeatedly as the work progressed before engineering societies, especially the Society for the Promotion of Engineering Education. Thus the report represents to a considerable extent a composite idea of the present standing of engineering education together with an outline of the probable future developments.

While the report does not advocate any specific change in the curriculum, it does in a broad way indicate the most probable form of development which engineering schools must take if they are to

meet the requirements of the industries and produce technically trained men who will compete with those from other countries. The report emphasizes the fact that we can find a proper type of training for men for the industries only through long continued experimentation in different types of schools. It calls attention specifically to the experiment in engineering education which has to do with the introduction of cooperative work and the elimination of the practice shop from schools. That greater emphasis must be laid on the correlation of industry with the schools is one of the fundamental conclusions of the report. Given the results of this long investigation and its discussion, the question immediately arises as to what type of experiment in education will be most fruitful in the development of the proper type of men for the industries. A survey of the situation by any one familiar with industrial needs seems to point clearly to the necessity in this country of developing two different types of men for use in the industries.

First, a man who may be called a technician, who is highly trained in science and mathematics, who possesses the instinct of the research man and who can devote his entire time to highly technical research problems, either in the research laboratories which are now rapidly being developed in the large industries, or by applying the results of his research to engineering science. For the training of this type of men, there is needed the best of scientific equipment, the members of the faculty must be those who are intimately interested in research problems, and the student himself must have what is sometimes called a mathematical mind. It is doubtful if this type of a man can be developed in a four-year course under existing conditions. In fact, it is probable that such a man can be developed only in a school which has a thorough graduate department devoting its energies primarily to research but giving instruction in the fundamentals of science and mathematics.

The second type which seems to be demanded by the industries is the man who has a broad general knowledge of engineering subjects and can apply that knowledge in an effective way in present engineering problems. He must have ability to command men, a knowledge of the applications of economic principles to industries, and a broad training in the so-called humanities, since he is the man in contact with men of other types in other fields of human activities. He should not be a research man, his training in mathematics need not be of necessity so extensive as that of the research technician, but his understanding of engineering problems should be extensive. Such a man can not be trained in the ordinary schools because of the artificial conditions which of necessity exist in academic institutions. He must become familiar with the industries while yet a student in order that he may understand thoroughly the applications of his

theoretical courses in school and their application to industries and also that he may become familiar in the formative period of life with the problems of labor and the human factor in engineering. It is in the development of this type of man, who is to become the manager and operating head of our large manufacturing industries, who needs more than any other the advantages to be derived from the cooperative system.

It is unfortunate that in this country we have no institutions with sufficient funds to develop a complete school of applied science, (1) having as its foundation a modified standard four-year course of instruction, (2) accepting young men for the course upon graduation from the high schools, (3) coordinating with this a proper cooperative system, and (4) having a graduate school devoted to instruction of graduates from a four-year course not only in the applications of science, but also of economic principles to industries. This graduate school should be in close coordination with the research department, corresponding in many ways to the Mellon Institute of Industrial Research at the University of Pittsburgh, where problems in the application of science to industries are studied at first hand under ideal conditions, and later the results of these investigations are applied directly to the solution of problems of industry. The graduate student would thus have the opportunity of taking his science and mathematics in an atmosphere that would be conducive to the development of the best type of man for research.

The Civil War was the crystallizing process which brought forth the type of engineering schools which are now common in this country. The result of the world war, in the same manner, will be the crystallization of the ideas now prevalent in regard to technical and scientific training. We shall have in the near future an engineering school of a type quite distinct from that in existence at the present time.

It is only necessary to mention it to bring to mind the failure of this country to provide for a school of engineering which has a faculty, buildings, equipment, and resources comparable with similar institutions in Europe.

In this country we have schools of engineering which offer excellent courses for undergraduates. We have one or two schools like Columbia University and the Massachusetts Institute of Technology which offer graduate courses to some extent. We have certain other schools like the University of Illinois, the Ohio State University, etc., that conduct research and engineering experiment stations supported by the State. There is, however, no single school which combines in an effective way all three factors which go to make a complete engineering school, namely, undergraduate courses, graduate courses, and research both pure and applied. I propose to outline briefly

some of the factors which must be taken into consideration in establishing such a school.

The engineer must be a man of culture and broad training such as can best be secured in the atmosphere of a large university. Also it is only at a university that there are available libraries and laboratories especially of science and economics, which are essential to the student of engineering and especially to graduate and research men. The university which has such a school as a part of it must be located at the center of a great industrial district where all types of engineering are available for study at first hand by the students.

In its undergraduate department the functions of such a school would be to train young men to enter engineering industries in which the present graduates from our best engineering schools now enter.

In its graduate department the function would be to train men to enter the research division of engineering industries and to supply the ever increasing demands made by the National and State Governments for trained investigators.

In its research department the function would be two-fold: First, to develop through pure research the fundamental principles upon which all engineering is based and to obtain standard data pertaining to the various materials employed in engineering work; second, the investigations of specific problems, solutions of which are demanded by individuals, firms, or corporation.

An estimate of the faculty, buildings, equipment, and resources which would be required for such an institution shows that an endowment of \$20,000,000 would be needed. Such a school should operate in close connection with the municipal, State, and National Governments in addition to its close cooperation with the industries of the country.

Since it seems at the present time impossible to secure adequate funds for such an institution it is highly desirable that different institutions in the country should devote themselves to the solution of specific problems and thus each one become an experimental laboratory for the benefit of engineering education.

CHAPTER IV.

COMMERCIAL EDUCATION.

By FRANK V. THOMPSON,

Superintendent of City Schools, Boston, Mass.

CONTENTS.—Development of commercial education in public schools—Federal Board for Vocational Education: Provision for commercial education—Report of the Committee on Business Education: Commission on the Reorganization of Secondary Education—School surveys and commercial education—Conclusion.

The influence of industrial vocational education is having its effect upon practices and methods of commercial education. The practice of industrial education of analyzing a curriculum of subjects containing values of vocational work, related vocational, and non-vocational subjects is causing us to examine commercial education with a view to a more careful practice with respect to like items.

We are accustomed to note a large proportion of our high-school pupils as pursuing commercial education. More strictly speaking, however, commercial pupils in our high schools are those pursuing general academic education with one or two commercial subjects, usually of clerical character. There has been little related commercial work required of our so-called commercial pupils and the nonvocational or general academic subjects have been taught with complete disregard for the special needs of commercial pupils. A review of the historical development of commercial education easily explains the present situation.

In the early days before the period of vocational education, no provision was made in educational curriculums for the training of boys and girls for office work or other commercial occupations. The private business school was first to see the need of a new training and to effect an organization to meet this need. These institutions offered short intensive courses in bookkeeping and later in typewriting and shorthand. The history of the private commercial school is well known. This type of school rendered a real service at a time when the public-school authorities were either ignorant of the need or unwilling to meet it. The original commercial courses in public high schools were short intensive courses. This kind of organization immediately called down upon commercial educators severe criticism from those who were charged with the responsibility of administering public education, and from the public in general which was at that time quick to reflect the idealism and aloofness

from life character of all educational enterprise. The natural result of this widespread criticism was to shake the faith of the commercial teachers in the type of training which they had received—that is, private commercial school training—and were recommending for the public school. It was not long before these teachers of commercial subjects began to play up to the academic standard so esteemed in the new educational fields in which they were workers, with the ultimate result that in the average high school commercial education simply represented a number of commercial elective subjects grouped with academic electives and distributed throughout the four-year program.

Under the average conditions of high schools a few of these commercial subjects could be taken, and under the most favorable conditions many such subjects could be elected. It can be seen readily that this elective plan could effect no standard of commercial instruction, and as a result the product ranged all the way from reasonably efficient to wholly inefficient. Commercial pupils under this plan lacked the thoroughness and attention which vocational pupils in more modern vocational courses attain. By the compromise described commercial educators succeeded in winning a place among educators in general, and were able to advance the cause of commercial education in a system not attempting any other kind of vocational work.

In a subsequent period of educational development two years of commercial work were offered at the end of the high-school course. Only those who were able to continue through the four-year program were permitted to get commercial training. The result of this type of commercial course was that the large majority of boys and girls who had any claim on public commercial education were denied the privilege of getting it. The private commercial school waxed fat on this public-school program.

The evolution of commercial education seems to be bringing us at this moment to a new and better conception of proper procedure. We are now attempting to meet the needs of boys and girls who attend high school in large numbers for the first two years, and who desire instruction in commercial subjects, by placing commercial work at the beginning of the course, but adapting this work to the stage of maturity of the younger pupils. The more technical and difficult commercial subjects are postponed to the latter part of the high-school course. Such a plan seems to meet more adequately the needs of all the pupils who resort to our high schools looking for the advantages possible under the limitations of time, capacity, and maturity.

Our first-year high-school commercial work consists mainly of commercial arithmetic, penmanship, and elementary bookkeeping. In our second-year work are found more advanced bookkeeping,

typewriting, and simple office procedure. Stenography and still more advanced bookkeeping are reserved for the third and fourth years. In junior high schools commercial subjects are generally taught upon a prevocational basis. Many junior high schools in their efforts to furnish fullest opportunity for those pupils who will not proceed to the senior high school are offering somewhat technical and advanced courses in stenography and bookkeeping, too advanced for the pupils who pursue the courses.

To summarize the present stage of development of commercial education in our public high schools, it may be said that the present is a period of earnest and rapid readjustment. Mistakes and failures of the past are recognized, and earnest effort is made both to make the courses suitable to the ages and capacities of pupils and for the purpose of making most valuable the opportunities for commercial instruction for all pupils, irrespective of their educational limitations and vocational destinies.

One of the most hopeful signs of a more adequate conception of the province of commercial education is the recognition that there are many commercial occupations other than those of bookkeeper and stenographer; that no boy or girl should be encouraged to apply for, or to accept, any position for which he or she is not qualified by maturity, general education, and special training; that the special aptitudes of boys and girls should be taken into consideration in determining the kind of position for which each one should be trained, and that new types of commercial education must be developed to meet newly discovered needs in the field of business training.

As an illustration of the recognition of commercial occupations other than clerical may be mentioned the subject of retail selling. In no field of commercial education is there greater activity or need for educational facilities than in that of retail selling and retail store service. In the immediate future plans for meeting this need should be developed. This attempt will mean the development of a new department of business education, with specially qualified teachers and with methods of procedure specifically adapted to secure the ends sought.

At the present time many cities are experimenting with courses in salesmanship, or, better named, retail selling. It would appear that the procedure of industrial vocational education had more in the way of suggestion for courses in retail selling than have our older courses in clerical practice. We have seen that our long-established commercial education has followed the academic procedure of the high school in teaching commercial subjects without field practice. Those best qualified to judge consider that salesmanship can not be effectively taught from textbooks alone unsupplemented by actual practice under supervised conditions. We can not expect that salesmanship can

develop as rapidly and with the same facility that clerical commercial education has shown.

During the conditions of war and the stimulation of the labor market, the need for clerically-trained commercial workers has been more apparent than that of other commercial occupations. The wages offered for clerical workers has grown with the unusual demand. This condition may be expected to retard for the present the development of the teaching of salesmanship. Even under normal conditions the teaching of salesmanship has been involved in the social prejudice which seems widespread, namely, that the commercial employment of selling goods does not equal (in the minds of pupils and parents at least) the social grade that clerical workers enjoy. Particularly with girls the vocational motive is as apt to be found in social esteem as in the wage offered. Employers of labor seeking trained sales people will need to do much in the way of affecting public opinion concerning the worth and dignity of the sales person before our pupils in public schools may be expected to elect training in salesmanship in preference to the present esteemed clerical occupation. Various investigations such as Cleveland and Minneapolis have shown that selling is more seasonal in character than in clerical work. However, any analysis of the process of selling will show that it is an art for which training may be offered as truly as that of clerical occupation, but as long as there is keen competition both in wages and in social esteem among various commercial occupations, we may expect that boys and girls will still resort in greater numbers to the long established and tried clerical occupations.

FEDERAL BOARD FOR VOCATIONAL EDUCATION.

PROVISION FOR COMMERCIAL EDUCATION.

Among the several assistant directors for various types of vocational education is found provision for a specialist in commercial education. F. G. Nichols, formerly director of commercial education in the city of Rochester, N. Y., has been appointed to carry on this function. Commercial education may expect from a new national source advice, guidance, and assistance, limited heretofore in this country. It is expected that a State supervisor of commercial education will be appointed in each State; such a supervisor to be accountable to the assistant director of commercial education on the staff of the Federal Board for Vocational Education in Washington.

We may expect that the character of teachers' qualifications may be formulated as the result of the new organization of forces. A better training for commercial teachers would seem probable both as the result of stimulation and advice of the national director, and also from the possibility of national funds which seem possible under

the Smith-Hughes law. We are informed that certain kinds of commercial work where the vocational conditions are assured may receive the same subvention that does industrial vocational work. For example, commercial pupils who take cooperative courses and work at intervals in the school and in the vocation under conditions of approval as to the character of the course may constitute a group for which national moneys can be granted. Courses in salesmanship, such as those maintained in Boston and Cleveland, may petition and likely receive the same proportion of national funds for such kinds of commercial education as do courses in improved industrial education.

REPORT OF THE COMMITTEE ON BUSINESS EDUCATION.

COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION.

In 1903 the National Education Association issued a brief report on commercial education, the chief feature of which was a recommendation of a commercial curriculum for general high schools. Since that date the association has offered no formal statement upon the subject of commercial education.

Two years ago a committee consisting of Dr. Cheesman A. Herrick, president of Girard College, Philadelphia; F. G. Nichols, formerly director of commercial education, Rochester, N. Y., now assistant director of commercial education, Federal Board for Vocational Education; and F. V. Thompson, superintendent of schools, Boston, formulated a report now under revision by the reviewing committee on the Reorganization of Secondary Education of the National Education Association.

The report emanating from this committee can not fail to receive marked attention, due to the keen interest in the question of readjustment of commercial education now dominant in the minds of our administrators of secondary schools.

No one who is familiar with the pronouncement of the National Education Association, in 1903, regarding the course of study can fail to see the progress and expansion of commercial education when comparing the single inflexible, largely academic course of 1903 with the manyfold flexible courses formulated at the present time. As an illustration of the modern development of commercial courses of study, the commercial curriculum for cosmopolitan high schools, adopted by Boston in 1917, is offered below. It will be noted that the commercial curriculum is divided into three distinct sections in the third and fourth years of the course. Commercial pupils by such a curriculum can specialize either for the accounting or bookkeeping side of commercial occupations, or for the stenographic, or for the vocation of selling.

COMMERCIAL CURRICULA.

(To meet all requirements for commercial certificate.)

FIRST YEAR.

Required subjects.	Points.	Elective subjects.	Points.
Physical training I.....	2	History I.....	3 or 5
Choral practice.....	1	Foreign language I.....	5
Hygiene.....	1	Biology I.....	3 or 4
English I.....	5	Introductory science.....	3
Bookkeeping I.....	4 or 5	Drawing I (freehand).....	3
		Domestic art I.....	3

SECOND YEAR.

Required subjects.	Points.	Elective subjects.	Points.
Physical training II.....	2	Choral practice II.....	1
English II.....	4 or 5	History of commerce.....	3
Bookkeeping II.....	4 or 5	Foreign language II.....	4 or 5
Commercial geography.....	3	Mathematics I.....	5
		Biology II.....	3 or 4
		Drawing II (freehand).....	3
		Domestic art II.....	3

THIRD YEAR.

NOTE.—At least one elective in the third and fourth year must be a "Controlled Option" (a related vocational subject taught in a homogeneous division).

Accounting.

Required subjects.	Points.
Physical training III.....	2
English III.....	3 or 4
Bookkeeping III.....	4 or 5

Secretarial.

Required subjects.	Points.
Physical training III.....	2
English III.....	3 or 4
Phonography I.....	5
Typewriting I.....	3

Elective subjects.

Choral practice III.....	1
Phonography I.....	5
Typewriting I.....	3
Merchandising I.....	4 or 5
Civics.....	3
History III.....	3, 4, or 5
Foreign language III.....	4 or 5
Physics I.....	3, 4, or 5
Chemistry I.....	3, 4, or 5
Drawing III.....	3
Domestic art III.....	3

Elective subjects.

Choral practice III.....	1
Bookkeeping III.....	4 or 5
Merchandising I.....	4 or 5
Civics.....	3
History III.....	3, 4, or 5
Foreign language III.....	4 or 5
Physics I.....	3, 4, or 5
Chemistry I.....	3, 4, or 5
Drawing III.....	3
Domestic art III.....	3

Merchandising. (Retail selling.)

Required subjects.	Points.
Physical training III.....	2
English III.....	3 or 4
Merchandising I.....	4 or 5

Elective subjects.

Civics.....	3
History III.....	3, 4, or 5
Foreign language III.....	4 or 5
Physics I.....	3, 4, or 5
Chemistry I.....	3, 4, or 5
Drawing III.....	3
Domestic art III.....	3

Elective subjects.

Choral practice III.....	1
Phonography I.....	5
Typewriting I.....	3
Bookkeeping III.....	4 or 5

FOURTH YEAR.

<i>Accounting.</i>		<i>Secretarial.</i>	
Required subjects.	Points.	Required subjects.	Points.
Physical training IV.....	2	Physical training IV.....	2
English IV.....	3, 4, or 5	English IV.....	3, 4 or 5
Commercial law ¹	3	Phonography II.....	5
Bookkeeping IV.....	4 or 5	Typewriting II.....	3
Office practice.....	2 or 3		
' Elective subjects.		Elective subjects.	
Choral practice IV.....	1	Choral practice IV.....	1
Phonography II.....	5	Commercial law ¹	3
Typewriting II.....	3	Bookkeeping IV.....	4 or 5
Merchandising II.....	4 or 5	Office practice.....	2 or 3
Economics ¹	3 or 4	Merchandising II.....	4 or 5
Foreign language IV.....	4 or 5	Economics ¹	3 or 4
History IV.....	4 or 5	Foreign language IV.....	4 or 5
Civil service.....	3	History IV.....	3
Drawing IV.....	3	Civil service.....	3
Domestic art IV.....	3	Drawing IV.....	3
		Domestic art IV.....	3
<i>Merchandising.</i>		(Retail selling.)	
Required subjects.	Points.	Elective subjects.	Points.
Physical training IV.....	2	Phonography IV.....	5
English IV.....	3, 4, or 5	Typewriting IV.....	3
Merchandising II.....	4 or 5	Economics ¹	3 or 4
' Elective subjects.		Foreign language IV.....	4 or 5
Choral practice IV.....	1	History IV.....	4 or 5
Commercial law ¹	3	Civil service.....	3
Bookkeeping IV.....	4 or 5	Drawing IV.....	3
Office practice.....	2 or 3	Domestic art IV.....	4

COMMERCIAL COURSE CERTIFICATES.

A candidate for a commercial certificate must have completed a full course of training in at least one of the three vocational groups—i. e., accounting, secretarial or merchandising, with a grade not less than B in any subject of the group.

SCHOOL SURVEYS AND COMMERCIAL EDUCATION.

Since the last report of the Commissioner of Education on commercial education, a number of surveys have been made, notable among them being those of Cleveland, Minneapolis, and Indianapolis. In general, these surveys bear out the position of the Commissioner of Education's Report of 1915-16. As an instance of this, the survey in Cleveland draws a parallel between the actual commercial vocations found in that city and the public provisions for training workers in commercial occupations in the public high schools of the city. The situation depicted contains no surprises for those who are familiar with what was revealed in New York City by the Hanus inquiry of 1912.

¹ In schools requiring both commercial law and economics, the former may be taken in the third year.

Briefly stated, the Cleveland survey shows what any survey invariably does—that commercial education in our public high schools pursues a policy quite independent of the business needs and conditions of the community under consideration. Commercial education has been a thing of school credits and academic standards conducted in accordance with college entrance requirements or with abstract scholastic procedure. Commercial educators have neither seen nor apparently cared for the actual conditions of employment into which their graduates may go. The school prepares a certain product which business must take or leave just as it chooses. The Cleveland survey makes a distinct point of the fact that boys and girls are trained alike for the same kinds of commercial occupations, whereas an actual survey of business conditions shows that the sex conditions of employment are quite different, males being found in excess in certain commercial employments and females in other kinds of commercial employment.

Another pertinent criticism of the Cleveland survey is to the effect that commercial employments are taught simultaneously to the same pupils; that is, our public high schools train our boys and girls to be both good bookkeepers and good stenographers, whereas business employment shows that the demand is for specialized workers in one field or the other. Figures pertinent to this point are as follows: In Cleveland, in large business concerns, it was found that the dual capacity of stenographer and bookkeeper was found in one instance in a thousand; in small businesses only in sixty instances to a thousand.

The findings of this survey, as well as the findings in other like surveys, illustrate beyond dispute that commercial education in our public high schools has followed wholly the traditions of the school and has been oblivious to the field conditions of the vocation. There is a growing body of evidence, however, that there is a willingness to change our procedure. We may expect within the next five years to see sweeping and radical changes characterize commercial courses in our high schools.

CONCLUSION.

In general, the better type of four-year commercial course will continue to fulfill a real need and should be encouraged. The short-unit course will be found in part-time, extension, and preparatory day-school courses for boys and girls already employed. Evening school commercial work should be put on a practical and vocational basis, having in mind definite needs of definite groups of people; foreign-trade courses, in centers where such courses should be encouraged, should be organized and given wide publicity; retail-selling education of a high character, both in connection with the four-year commercial course and the part-time evening school classes, should

be made available; more intelligent rules for
should be worked out; adequate commercial
ties that will insure the training of commer-
newer lines of commercial vocational educat-
every State; and the whole field of comm-
be reorganized where necessary on the bas-
individual aptitudes, and local requirements.

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CHAPTER V.

PUBLIC EDUCATION IN THE CITIES OF THE UNITED STATES.

CONTENTS.—I. The larger cities: Introductory—Americanization—Elimination of German and the teaching of foreign languages—Junior high schools—Vocational education—The Gary School—Military training in the schools—War activities in the schools—Conclusion. II. The smaller cities: Administration—School board rules and regulations—The superintendent—The survey in school administration—Salaries and promotions of teachers—Duplicate schools—Supervised study—The war and the small city schools.

I. THE LARGER CITIES.

By J. H. VAN SICKLE, *Superintendent of Schools, Springfield, Mass.*, and JOHN WHYTE, *New York University*.

Long before America's entry into the great war, education in the larger cities, in common with every other aspect of our national life, was reacting to the great conflict across the seas. Our educational authorities were watching carefully the effects of the war upon European education, with a view to appropriating for our purposes the educationally fruitful ideas that were coming from the cataclysmic struggle, in which we had as yet no part; but as the months passed and the inevitability of our being drawn into the struggle became apparent, theoretical discussion as to the wisdom of this or that educational innovation of England or France gave way to the immediate consideration of the relation of the schools to the problem of war itself, in the event of our entering it. The schools were analyzed as to their part in a great preparedness program, and every phase of educational activity was scrutinized as to its potential contribution for service to a country at war. With the entry of America into the war, the slogan for the schools became "Win the War," and the solution of all the school problems was approached from that angle, for it was soon realized that the schools had become an essential part of the very machinery of modern war. That slogan is still, after 18 months of America's participation in the war, the determining factor in any consideration of educational problems, but already the problem of reconstruction is forcing its attention on the schools with an emphasis that is sure to become more and more insistent. And rightly so, for it is very apparent that a great many of the

educational problems of a country at war are and will be the problems of a country at peace, with the exception that in war their seriousness is accentuated and their immediate solution demanded. Hence it is frequently possible—and where it is possible, it is surely the part of wisdom to act accordingly—to unite the discussion of the best educational measures for a "Win the War" policy to a discussion of the applicability of those measures to post-war programs. By so doing we shall be proceeding along the lines of the warring European nations (particularly England and France), who under the compulsion of the times have adjusted their education to war and at the same time have not neglected planning and even executing in part such a revision of their whole educational policy as will best make up for the derelictions of the past and insure the future. Unless we proceed similarly, it is likely that after the war, when our problems seem less acute, lacking the stimulus of a great catastrophe, we shall try to solve them in the same haphazard, indifferent way that has characterized our attempts at this solution in the past.

The latest example of the long look ahead toward the closer relations, commercial and otherwise, which are sure to obtain between the allied nations is furnished by France, which through the French high commission has arranged to send to the High School of Commerce, of Springfield, Mass., for an intensive course of two years in American business practice, 35 young women, about 18 years of age, who have had a preliminary education equivalent to that of a graduate of an American secondary school. These are daughters of French officers who were killed in the war. This is probably but the vanguard of a larger delegation of young women who, if the initial experiment is successful, will be sent to this and other similar institutions in this country for preparation to carry on work in French business houses. It will be necessary for them, after the war, to take the places of men who have lost their lives or been incapacitated by their injuries. The advantages of the plan, while marked on the side of commercial relations, are equally significant on the social side.

It is the wish of the members of the French high commission to have these girls made acquainted with the home life of the people of America, and to this end arrangements have been made by which they are to be taken into the homes of representative people of the city and treated not as boarders but as members of the families in which they may be placed.

It has been suggested that after the termination of the war a reciprocal arrangement may be made for the exchange of pupils between France and this country, and this may prove to be one of the factors that will bind together more firmly than ever the people of these two Republics.

AMERICANIZATION.

In the category of problems that has been thrown into especial prominence by the war, but whose solution belongs not only to war but to the future, is the great problem of the Americanization of the immigrant. Before the war it was a problem that engaged strenuous efforts only on the part of welfare and settlement workers and sociologists and remained in the eyes of a great many educators a more or less academic sentimental issue. To be sure, some provision had been made for certain aspects of the solution of the problem, e. g., for the teaching of English; and some States, such as Massachusetts, had even demanded compulsory attendance at evening school of minors of 16 to 21 who could not read and write up to the fourth-grade standard; but the enforcement of such laws was dependent upon the maintenance of evening schools by the towns and cities of the States, and far too few provided adequate facilities and financial support for such apparently extra curricula and irrelevant matter. But with the war came the sudden realization of the vital importance of the immigrant as a factor in the winning of the war. The revelation of the 1910 census that there were 5,516,316 people in the United States who could not read or write had evoked little comment and a few adequate remedial measures, but the fact that, of approximately 10,000,000 registrants for the selective draft, 700,000 could not sign their names aroused even the most apathetic to the serious impairment of our military efficiency revealed by such figures. With 1 out of 13 unable to respond intelligently to military or industrial orders on the one hand, and moral and spiritual appeals on the other, all because of lack of a common medium, the necessity for immediate action on the part of the schools became a matter of national importance. Additional facilities for Americanization were speedily provided, and the teaching of English to the immigrant as the first step in Americanization engaged the serious attention of school authorities all over the country.

THE IMMIGRANT AND THE NIGHT SCHOOLS.

There is a tendency to blame the immigrant for his failure to learn the language of his new country. But, as a general rule, his failure can be attributed less to his lack of desire than to his lack of opportunity. The opportunity must be given him in every community by ample provision for night schools that shall be looked upon as an integral part of the functions of the schools of America. Up to the present the night school has been treated as a foster-child, maltreated and even disinherited when the budget required. If the wisely conceived plan of the National Committee on Illiteracy is

to be realized, i. e., the utilization of all the school machinery of the country in the teaching of the foreign illiterate, the administrative wisdom of educational authorities will be taxed as never before to solve the pedagogical and financial problems that will come from this broadening of the school's functions.

THE TEACHING OF ENGLISH TO THE IMMIGRANT.

The fallacy that teaching English to foreigners is a simple, secondary matter, and may be safely entrusted to any who can be found to accept the pittance allowed such instruction, needs apparently to be demonstrated, for the policy of most night-school instruction in English rests upon this fallacy. It is time that educators realized that English for the foreigner is a foreign language and that the giving of instruction in foreign languages in our educational scheme has always presupposed a certain technique of instruction and a certain minimum at least of preparation and specialization.

ENGLISH AND THE PROBLEM OF AMERICANIZATION.

The selection, preparation, and organization of night-school teachers ought therefore to engage the most serious attention of school administrators, and particularly, because it is through the foreign language, English in this instance, that the immigrant's first introduction to the customs, thoughts, and ideals of the new country may come. The night-school instructor becomes, nolens volens, the interpreter of America to the newcomer—the mediator between the old and the new. To mediate effectively he should incarnate the best of his country and be able to approach the foreigner sympathetically. He should realize that he is one of the instruments that is trying to effect the blending of all the racial elements—the Slav, the Teuton, the Celt, the Anglo-Saxon—into a distinct racial cultural entity. That blending can not be commanded. Under the stress of war and under the compelling idealism of a Wilson, a "War Americanization" has taken place. The whole country has supported unitedly the compulsory service act and has given almost unwavering support to the policies of its President.

And the great struggle of all the races in a common cause will surely have constituted, when the war is over, a great step in that Americanization and democratization that all have desired. But with the conclusion of peace there will be lacking the urgent appeal for Americanization that the war has brought with it. The necessity will still exist, and it is even possible that, with the recrudescence of an intensified national feeling everywhere and the awakening of new nations from the suppressed national groups of Europe,

the nationalistic feelings of the foreign groups in America may be intensified and provide added difficulties to the process of assimilation. It is for the educators of the country to realize the importance of Americanization not only as a war program but as a peace program, and always as a problem for whose solution specialists on immigration, social welfare, and settlement work should be invoked.

DIFFICULTIES IN THE WAY OF AMERICANIZATION.

The insistence on English as a prerequisite to Americanization is one thing, but the sudden and radical suppression of all foreign languages by city or State command is another, and is likely to defeat the very ends that are sought for. Presenting American ideals and customs is one thing, but attempting to *command* immediate and utter forgetfulness of the old country is another, and perhaps the very way to insure in this country unassimilable foreign groups after the model of those existing in such countries as Austria, Hungary, Russia, and Germany where repression has marked the treatment of alien groups. The normal course of Americanization in many parts of the country with respect to English has so far been from the uni-lingualism of the immigrant to the bilingualism of the second generation, to the uni-lingualism (English) of the third generation. Whenever the process is slower, there is the likelihood that there is maintaining itself a distinct racial unit that may be holding too vigorously to all of its foreign habits and customs. Such a state of affairs demands the attention of immigrant and welfare experts. An analysis may prove that a great deal of responsibility for it may rest on the American of older generations who by his indifference and social exclusiveness has thwarted the initial impulses toward Americanization. It is difficult to see, however, how this normal process can be greatly accelerated without detriment to the immigrant and to his new country. Competent observers have remarked the deterioration that is evident in that immigrant who has contemptuously stripped himself overnight of all the customs and habits of his old country, for in their stead he has too frequently appropriated a shoddy Americanism of the streets. The problem that confronts those who would deal intelligently with the immigrant is how to transmute the real value that the foreigner brings with him into the new Americanism. The common assumption that the foreigner has nothing to lose and everything to gain in the transition; that he has nothing of himself, his background, his country to give, in exchange for what he receives, makes both him and the new country the losers. The spirit of Americans of older stock should be that so well expressed by the Secretary of the Interior, Mr. Lane, in his opening address at the National Conference on Americanization (Apr. 3, 1918). The keynote of the conference, "Our Responsibility,"

was struck in this address. His frank recognition of the seriousness of the problem, his assumption for the shoulders of the older Americans of their great responsibility in its solution, and the sympathetic spirit with which he meets the immigrant need to become the common possession of those school authorities into whose hands are to a great degree committed the solution of the great issue. To quote:

We are trying a great experiment in the United States. Can we gather together from all ends of the earth people of different races, creeds, conditions, and aspirations, who can be merged into one? If we can not do this, we will fail. * * *

There is no such thing as an American race, excepting the Indian. We are fashioning a new people. We are doing the unprecedented thing in saying that Slav, Teuton, Celt, and the other races that make up the civilized world are capable of being blended. * * * Out of this conference should come, not a determination to make more hard the difficult way of those who do not speak or read our tongue, but a determination to deal in a catholic and sympathetic spirit with those who can be led to follow in the way of this Nation.

To this blending, then, the Slav, the Teuton, the Celt, the Anglo-Saxon, the Romance, and other races are to contribute. That Italian boy born with the soul of an Italian poet must contribute that poetic soul to America. If in his Americanization he loses it, both he and America have lost. That Slav with his wealth of folk song and legend must contribute that to America. It is only thus that there shall come to pass that great new America in which shall be fused the first attributes of all peoples and races. Toward the consummation of that end educators must devote their best efforts.

ELIMINATION OF GERMAN AND THE TEACHING OF FOREIGN LANGUAGES.

Under the pressure of popular feeling, the teaching of German was forbidden in thousands of communities in America. The agitation in favor of its elimination was such that few school boards or superintendents insisted on its retention. New York eliminated all beginners' classes, thus abolishing all German in three years. Philadelphia abolished it entirely. Many, but by no means all, of the larger cities of the country followed suit.

Some whole States, such as Iowa, Delaware, Montana, etc., forbade the teaching of German in all schools.

The attitude toward this question in some of the more conservative of the larger cities is illustrated by the following paragraph from the last annual report of the Portland, Oreg., schools, L. R. Alderman, superintendent:

I have been asked repeatedly concerning the attitude the Portland schools will take regarding the teaching of German and French. Some have asked if we expect to do away with the former and increase the work in the latter.

Now, it is well known that Americans are deficient in language study. Europeans have been stimulated to understand the tongues of their near neighbors; but separated as we have been by great oceans, we have lived on without feeling the need of mastering any language save our own. But now comes the present stimulus. We are concerned as never before in our national life with events and developments in Europe. We wish to gain for ourselves the fine literature, art, and science of the Old World. We confidently trust that a time is near at hand when all nations will be united in a compact of enduring peace; and when such a time comes we all shall need to know the languages of other nations. The boys and girls in the high school will be the leaders of the coming age. They must be prepared to meet the requirements at that time. Spanish must be learned, French must be learned, German must be learned, and learned with more enthusiasm than ever before.

The results on the education of the country can not be measured as yet. One of the immediate results was the rapid increase in the teaching of Spanish. The lack of properly equipped teachers of Spanish seemed to be no barrier; the jobless teachers of German became teachers of Spanish almost overnight. Courses were discontinued without notice and students' programs were shifted about in a demoralizing fashion. High-school students preparing for chemistry or other scientific professions, who had chosen German as an essential part of their preparation, were suddenly informed that the study of German even for such purposes was not necessary.

American educational authorities would do well at this time to consider the report presented (in 1918) by the committee appointed by the prime minister to inquire into the position of modern languages in the educational system of Great Britain. It was a strong committee, presided over by Stanley Leathes, a civil-service commissioner and one of the editors of the Cambridge Modern History, and including several distinguished persons, such as Sir Maurice de Bunsen, late ambassador at Vienna; Dr. H. A. L. Fisher, now minister of education; Dr. Walter Leaf, the well-known banker and translator of Homer. The report emphasized the special need for foreign languages for the conditions after the war and asked for increased instruction in modern languages. It placed French at the head of the list both for cultural and commercial purposes, and German close behind it, and then Italian, Russian, and Spanish. It came "to the conclusion that it is of essential importance to the nation that the study of the German language should be not only maintained but extended." To what extent the findings and conclusions of the Leathes committee lack pertinence for American conditions is a question that ought to be answered by the same type of scientific investigation that prompted the research of the Leathes commission. It is obvious, however, that British ranking of Spanish is too low for American conditions, in view of our colonial and South American relations.

JUNIOR HIGH SCHOOLS.

The rapid growth of junior high schools has been one of the outstanding educational developments of the years 1916-1918. Wherever a reorganization of the school system has been under contemplation, the organization of a junior high school seems to have found favor. The reasons for its favor lay somewhat, to be sure, in the fact that it seemed to involve no such violent change as would disorganize or demoralize even temporarily at least the school organization. And that is, of course, a commendable feature and has surely accelerated its introduction. But its comparatively easy incorporation into the present system contains dangers that must be avoided. It is patent that, in order to serve the ends that educators have purposed for the junior high school, it must involve a reorganization that is more than a mere numerical regrouping of the school years; it must contain and conserve above all those provisions for the educational guidance of the individual pupil in a wide, flexible, adaptable curriculum for which it was established.

It is not unlikely that five years may see its inclusion in the majority of the schools of the country. Prof. Davis, of Ann Arbor, has investigated the junior high schools in the North Central Association territory, 1917-18, and has found that about one-fourth (2,931) of the accredited schools contained the junior high school, and that one-fourth of this fourth (72) had been organized in 1917. The year 1918, Prof. Davis asserts, will show an even greater number of new junior high schools. The growth in the North Central Association has been fairly typical of the whole country.

In a plea for the reorganization of the school system of Greater New York, Mr. Somers submitted the following resolution, which was adopted by the board:

That the board of superintendents be requested to appoint a special committee of three associate and five district superintendents to investigate and report upon the desirability and advisability of organizing our schools on the basis of a six-year elementary, a three-year intermediate, and a three-year high-school grouping.

VOCATIONAL EDUCATION.

The Great War has demonstrated as nothing else could, the national need for vocationally trained men and women. In recognition of that need the Sixty-fourth Congress passed the Smith-Hughes Act, which was signed by the President February 23, 1917. It provides for the promotion of vocational education; for cooperation with the States in the promotion of such education in agriculture and the trades and industries; for cooperation with the States in the preparation of teachers of vocational subjects; and for the ap-

propriation of money and the regulation of its expenditure. The moneys set apart by Congress are granted on a graduated scale, beginning with \$1,860,000 in 1917-18, and increasing to \$7,367,000 in 1925-26, at which amount they are continued indefinitely. The amount appropriated to any State must be matched by that State, to become available. Under the impetus of the Smith-Hughes Act vocational education has taken a great leap forward. The movement in support of trade schools and continuation schools has been accelerated. It is obvious that, with the shortage of labor and building material and the constant readjustments in teaching force due to the war, the adequate introduction and trying out of vocational training on a nation-wide scale must wait for more normal times. In the meantime, investigation as to the best methods of arriving at the end desired can be carried on, for there are not lacking those who, admitting the wisdom of the Smith-Hughes Act, are fearful lest in its administration it fail to achieve the great and easily recognizable national benefits for which it was passed. The Carnegie Foundation, for example, has reached the conclusion that the Smith-Hughes Act is reproducing the history of the Morrill Act in involving the Federal Government in great expenditures of money before a sound educational policy and system of supervision have been formulated. There are some educators who, welcoming the idea of more vocational training, see the unity of the educational system threatened—class education fostered by a kind of enforced predestination of trade or profession; in other words, that type of dualism in education inaugurated that has existed in Germany and must not be incorporated into American education, just at a time when Germany is reverting to an "Einheitschule" in an attempt to correct the evils of her undemocratic class education. It would seem that the whole matter is one which wise administration can solve by a frank recognition of the dangers involved, and by a scientific endeavor to remove these dangers.

THE GARY SCHOOL.

Vocational education after the Gary School type received a setback in New York City with the election of Mayor Hylan. Introduced as a part of a political program by Mayor Mitchell, it remained always a political issue and was continually subjected to the passion of political struggle. It was one of the chief issues in the last mayoralty campaign, and went down to defeat with its sponsor. The new school board under the new administration proceeded at once to "de-Garyize" the schools, and with the election of Mr. Ettinger as superintendent it is quite likely that the so-called Ettinger plan, with its prevocational opportunities for the seventh or eighth grades,

will be generally introduced. The Ettinger plan may, of course, lead to the junior high school or at least some compromise with it.

Advocates of the Gary School in New York City will always feel that the new system was not sufficiently tested, that four years' Garyizing of only a few schools did not provide sufficient data for its summary rejection. Opponents of the Gary school, unaffected by the political aspects of the question, can retort that the introduction of such a radical departure in such a vast organization as that of the New York schools was sure to meet with insuperable difficulties. The failure of the Gary schools in New York can as yet hardly be looked upon as an indictment of the Gary School scheme except as to its applicability to all the conditions of New York. Other communities may find in it all that Gary has found in it. Whatever may be the losses that may have come to New York through its adoption and rejection, the Gary School idea has at least served to accentuate the great import of vocational training for the whole country by the publicity that the New York experience has given it.

MILITARY TRAINING IN THE SCHOOLS.

Even before America's entry into the war the question of military training in the schools had become a much debated issue. Some States, such as New York, had by State legislation provided for military training in the schools of the State. The consensus of the opinion of educators opposed its introduction, and the committee on military training of the department of superintendence presented a report against it at the annual meeting of the superintendents in 1917. The report was adopted almost unanimously. The committee in its recommendations (1) asked for universal military training for young men 19 to 21 years of age, (2) protested against military training and military drill in the elementary or secondary schools, (3) advocated thorough compulsory physical training for boys and girls, (4) favored compulsory medical inspection, (5) encouraged outdoor camp life and camp activities, (6) placed new emphasis on patriotic and civic service as a prominent feature of an American education.

WAR ACTIVITIES IN THE SCHOOLS.

The availability of the schools for war purposes became apparent soon after the declaration of war. The school children became volunteers in Liberty Loan drives, Red Cross drives, and in every activity in connection with the war in which they could partake effectively. It is not too little to say that they played a vital part in the material and spiritual organization of the country in support of the war. Nor was their activity confined to the school year. Thousands of boys were mobilized during the vacation months for work on the

farms, and it has been due to their efforts that the farmer has been able to meet the shortage of labor and to harvest his crops. Thus in a very direct way the schools have come to the support of the American Army in France and to the vast suffering civilian populations of the allied countries.

CONCLUSION.

The period in which we are living is one of rapid flux and transition, and those in control of public education must so recognize it. They must be ready to meet every emergency. They must be prepared to cope with the problem of the returned, disabled soldier. They must keep open-minded toward all the great problems of reconstruction and the radical readjustments they may bring with them. America's experiences in the war will certainly lead her to certain new conclusions. But it is well to be reminded that European countries have a three years' start on the problems with which we must cope. We can learn from them. Educational journals are wisely opening their pages to detailed analyses of the changes that are taking place in the educational thought of Europe. If we are to remain abreast, we must even now be grappling with the same problems that have made for such radical revisions in the educational policies of the warring countries. It is only thus that we can prepare for the great reconstruction.

II. THE SMALLER CITIES.

(With less than 25,000 population.)

By W. S. DEFFENBAUGH,
Specialist in City School Administration.

A chapter treating of progress in education for a period of one or two years must deal principally with the change in the machinery of education. It is not the purpose of this chapter to show how much better children in the small cities are being educated now than a year or two ago. The aim is to summarize changes in administrative machinery observed from correspondence with superintendents in the smaller cities, from city school reports and other publications.

Among the significant changes that may be mentioned are the enactment of a general education law for the cities of the State of New York, simplified school-board rules and regulations, a greater interest in the scientific study of educational problems, salary schedules based to a certain extent upon merit, greater attention to industrial work,

home economics, and physical training, and the use of the schools for disseminating information regarding the war.

ADMINISTRATION.

During the past two years, few if any changes by special charter provision have been made in the manner of electing school-board members, in the number of members, or in the relation of the school board to the city council. In fact, few of the smaller city schools are now governed in any way by special charter provision. Most of the States have enacted general education laws to include the cities of the State. The State of New York is the latest to enact such a law. In that State the school systems of the several cities were operated and controlled under the provisions of nearly 250 separate acts enacted from the year 1829 down to and including the year 1915. These various laws of the legislature contained 600 pages of printed matter simply to create the necessary machinery to operate the school systems of the several cities. Many of these acts had become obsolete, many conflicting provisions were found in them, and in some cases every section of the law relating to the school system of the city had been amended, in some instances a single section having been amended a dozen or more times. Many of the provisions of these laws were mandatory in instances where the statutes should give school authorities discretionary power, and the statutes relating to the great majority of these cities so limited and restricted the functions of the local school officers that they did not have the authority to exercise many functions which a board of education should exercise in order to maintain and operate a school system in accordance with the public sentiment of the city over which it exercised jurisdiction.

The situation in the State of New York was the cause of many special bills being introduced into the legislature each year for the purpose of amending the several acts so as to give local school authorities the power to execute certain powers in relation to the local school systems which are desired by the people of the several cities. For illustration, one city went to the legislature to obtain authority, which it did not have under existing law, to submit to the voters of that city a proposition to expend \$40,000 for the erection of an elementary school building. Another city which had erected a new school building and abandoned an old one did not possess the authority to sell the abandoned school property. It was necessary to go to the legislature to obtain authority for that purpose.

In order to provide better administrative machinery for the schools of the several cities of the State, the education department prepared and caused to be introduced into the legislature a bill which repealed all the special acts and substituted for the 600 pages of printed matter a law which contains about 20 pages. The bill was enacted into law during the session of the legislature in 1917.

The chief advantages claimed for this law are:

1. It is simple and clear and easily understood by those who must administer it.

2. It confers broad powers upon boards of education in the several cities of the State, so as to operate and manage their schools as the residents of the city may desire and to adjust the school organization to the necessities of new and changing conditions from year to year.

3. It gives greater powers to localities than they have ever before exercised, and it eliminates many of the useless mandatory and restrictive provisions contained in the old, complicated, and obsolete statutes.

4. It fixes responsibility upon those who manage the schools.

That the powers and duties conferred by the general education law upon city boards of education in the State of New York are broad and permit cities to expand their educational system is evident from the fact that school boards have power to prepare an annual estimate for the following purposes:

(a) The salary of the superintendent of schools, associate, district, or other superintendents, examiners, directors, supervisors, principals, teachers, lecturers, special instructors, auditors, medical inspectors, nurses, attendance officers, clerks, and janitors, and the salary, fees, or compensation of all other employees appointed or employed by said board of education.

(b) The other necessary incidental and contingent expenses, including ordinary repairs to buildings and the purchase of fuel and light, supplies, textbooks, school apparatus, books, furniture and fixtures, and other articles and service necessary for the proper maintenance, operation, and support of the schools, libraries, and other educational, social, or recreational affairs and interests under its management and direction. The provisions of this section in regard to the purchase of light shall not apply to a city having a population of 1,000,000 or more.

(c) The remodeling or enlarging of buildings under its control and management, the construction of new buildings for uses authorized by this chapter and the furnishing and equipment thereof, the purchase of real property for new sites, additions to present sites, playgrounds, or recreation centers and other educational or social purposes, and to meet any other indebtedness or liability incurred under the provisions of this chapter or other statutes, or any other expenses which the board of education is authorized to incur.

SCHOOL BOARD RULES AND REGULATIONS.

The rules and regulations of a school board are not often revised, but a sufficient number of school boards have taken this action within the past few years to show that the tendency is toward fewer and more definite rules. Too many regulations seriously confuse. The teacher who manages her school with the least effort usually makes few rules. School boards can learn from the experience of teachers in this respect not to hamper the superintendent and others by making rules to cover every conceivable point.

The rules and regulations adopted by the school board at East Orange, N. J., may be given as an example of the kind that most progressive school boards are adopting. These rules are in accordance with two interesting principles of school administration: (1) Legislative action by the school board as a whole; (2) centralization of executive authority in the superintendent.

Article II of the rules and regulations of that city, which treats of the organization of the school system, and Article III, relating to the duties of the executive officer, are quoted as a type of the kind of rules that school boards in the smaller cities could well adopt:

ARTICLE II. ORGANIZATION OF THE SCHOOL SYSTEM.

SECTION 1. Departments and Their Functions. There shall be three departments, to be known as the Department of Instruction, the Department of Records and Finance, and the Department of Buildings and Grounds.

Instruction. The department of instruction shall comprise all the activities that directly affect the welfare of the pupils, such as teaching, discipline, attendance, and medical inspection. The superintendent of schools shall have charge of this department.

The department of records and finance shall comprise the more strictly business activities of the board, such as keeping records, the making of contracts, purchases, and the custody and expenditure of funds. The secretary of the board shall have charge of this department.

Buildings and Grounds. The department of buildings and grounds shall be responsible for the physical upkeep of the school property, including repairs, renovation, and new construction. The supervisor of buildings and grounds shall have charge of this department.

ARTICLE III. EXECUTIVE OFFICERS AND DUTIES.

SECTION 1. Superintendent of Schools. The superintendent of schools shall under the direction of the board of education, and in accordance with its rules and regulations, have the general management of the school system.

Duties. He shall, unless excused by the board, attend all regular and special meetings of the board of education, and of committees, and shall have a right to speak, but not to vote.

All communications to the board from principals, supervisors, teachers, or other employees shall be submitted through the superintendent of schools. Communications from teachers shall also be first submitted to their respective principals. All such communications shall be referred to the board at the next regular meeting by the superintendent with or without recommendations. But nothing in this paragraph shall be construed as denying the right to appeal to the board of any member of the school system.

The superintendent shall recommend to the board for appointment principals, supervisors, teachers, and others to be engaged in the work of instruction or discipline, also school doctors, nurses, and attendance officers. With the advice of the supervisor of buildings and grounds, he shall also recommend for appointment engineers, janitors, mechanics, and other assistants. In the same manner he may recommend the removal of any employees whose services are no longer required. All recommendations provided for in this section shall be made in writing, excepting in the case of substitutes for temporary periods, where no action by the board is necessary.

The superintendent shall assign principals, teachers, and others employed in the department of instruction to their duties, and make necessary transfers, reporting such action to the board at the next regular meeting.

He shall, with the cooperation of principals and supervisors, plan courses of study, time schedules, etc., for all departments, and supervise their operation; but he shall submit to the board for its approval any important changes which call for a radical departure from accepted policies, or which require increased expenditure of money.

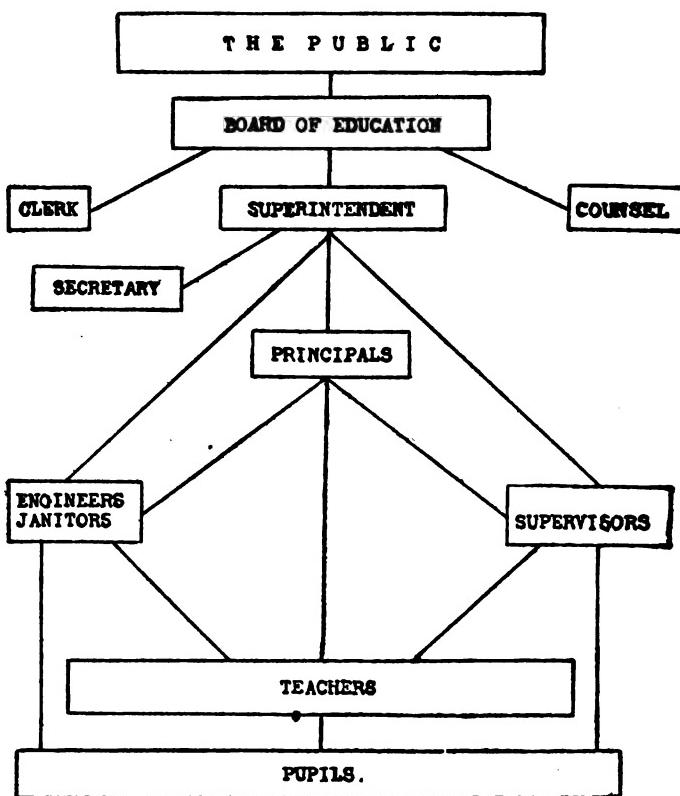
With the cooperation of principals and supervisors, the superintendent shall recommend appropriate text and reference books, school supplies, apparatus, and furniture for the use of the schools, and shall submit such recommendations to the board for its approval.

He shall prepare the annual budget before April 1 and submit it to the board at the next regular meeting.

He shall submit a report to the board in writing at least once a month, with recommendations for action. This report shall be mailed to each member of the board at least 48 hours before the board meeting, and any further particulars may be submitted in writing at the meeting. He shall prepare a general report on the condition of the public schools at the close of the school year. He shall prepare and submit to the board any special reports which may be required. He shall attend to all other necessary details of administration, and shall faithfully perform such other duties as may be required of him by the board of education or the laws of the State of New Jersey.

Huron, S. Dak., and Mansfield, Mass., may be given as examples of other cities that have simplified the administrative machinery of their school systems. The following chart shows the plan of the organization of the school system of Huron:

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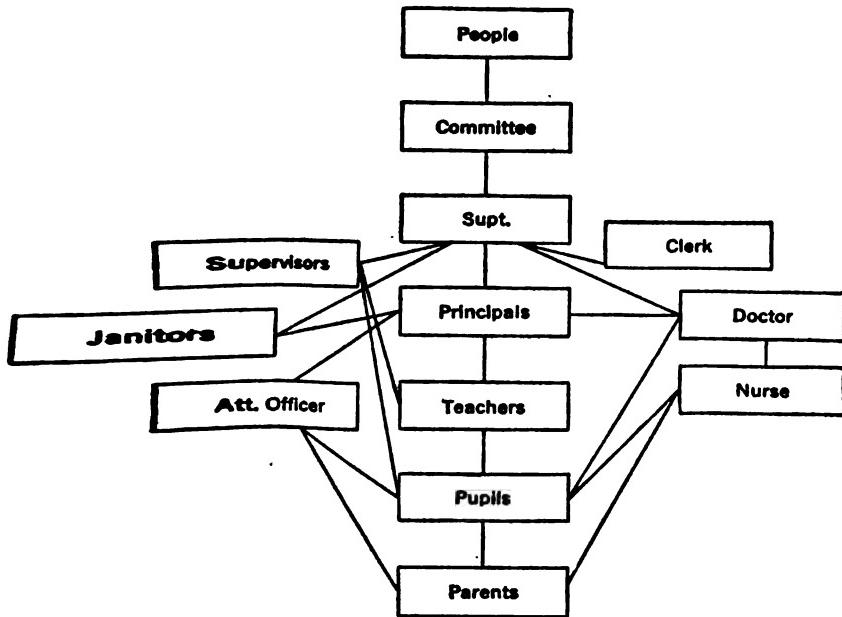
HURON PLAN OF SCHOOL ORGANIZATION

By this plan the board of education legislates, the superintendent executes, the board acts as a whole without standing committees. The board of education holds the superintendent responsible for an efficient execution of its orders. This responsibility is distributed by the superintendent to all members of his staff, the principals having the responsibility of the first degree next to the superintendent. Within his or her particular field of activity, the superintendent holds each of his staff responsible for effective results, the only way by which to secure them.

With the delegation of responsibility, there must go commensurate authority. The superintendent must uphold the authority of each member of his staff within his or her field of responsibility. Pupils are amenable to the management of their teachers and of special supervisors, and at times to that of janitors and engineers. The teachers work under their principals and cooperate with the janitors. The principals, janitors, and supervisors cooperate directly with the superintendent, who is the means of communication between all members of his staff and the board of education.

The school board at Mansfield, Mass., may also be mentioned as having simplified the organization of its school system. The superintendent has been made secretary of the school board, thus centering the executive work under one head. This makes the superintendent responsible for the bookkeeping, purchasing, correspondence, records, and other clerical matters, as well as for the administration and supervision of instruction. The making of the superintendent the secretary of the school board in a small city should always carry with it sufficient clerical assistance to relieve him of details.

The organization of the school system at Mansfield in relation to the community may be pictured as follows:



It will be noted that—(1) the board is responsible to the town for the control of the schools; (2) the superintendent is responsible to the board for the expert management of the schools; (3) the principals are responsible to the superintendent for buildings, teachers, pupils, and janitors; (4) teachers and janitors are responsible to the superintendent and principal.

In the three cities just cited as examples of those that have reorganized the administrative machinery of their schools all standing committees have been abolished. School boards as a rule are reducing the number of such committees or discontinuing them altogether. The plan of having many committees originated with many school boards when they were larger than they now are. As a rule the larger boards have more committees than the small boards.

Though the size of school boards has been reduced by legal enactment this evil of many standing committees, characteristic of the large board, persists in not a few cities. These have hung on as a sort of vermiform appendix, having no useful function and often causing internal trouble. In not a few of the smaller cities there are still as many standing committees as there are board members, it not being uncommon for each member to hold a chairmanship, which is about the only excuse for the existence of many of the committees, since there is nothing in particular for them to do. In the absence of a genuine need, too frequently they take upon themselves duties that belong to the professional experts employed by the school board. On the other hand, if the board acts as a whole, responsibility can be placed on each member and not on an elusive committee; all business, not part of it, is considered by the entire board and all members must be intimately familiar with every phase of it. Such an arrangement insures better correlations and more harmonious expenditures, expedites business, and avoids the shifting of responsibility. One argument sometimes advanced in favor of committees is that they can meet and go over the work assigned them without having it discussed openly in board meeting. The argument that school business should be transacted through committees so as not to attract the attention of the public is not valid in a democracy. The school board represents the people who should be kept informed of the disposition of all school matters that affect the general public. There are times, it is true, when it is necessary for the school board or a special committee to discuss in private matters in which only individuals are interested. The school boards that have reduced the number of their standing committees, or, better, that have abolished them, have without doubt taken a step forward in the efficient administration of their schools.

THE SUPERINTENDENT.

School board rules and State legislation have gradually recognized the importance of the office of city superintendent of schools. The qualifications for the office have been raised and more power granted the superintendent. For example, the recently enacted general education law of the State of New York takes cognizance of the city superintendent, setting forth the qualifications for a city superintendent in that State and his powers and duties. A provision of the law is that in all cities except in those of the first class a superintendent shall serve at the pleasure of the board. This is an unusual provision. The argument for such provision is that if a superintendent is to be the executive officer of the school board, he should be requested to resign at any time he can not or does not carry out the

plans of the board, and that it means a longer tenure for the majority of superintendents. When superintendents are elected for a term of two or three years and are required to come up for reelection, all the enemies he has made concentrate their forces upon the school board. The expiration of a superintendent's term is a signal for them to act. If he serves at the pleasure of the board, there is no one time when opposition is invited.

The standard for the office of city superintendent is placed by the recently enacted general education law of the State of New York on a higher basis than in most other States. He must be—

1. A graduate of a college or university approved by the University of the State of New York, and have had at least five years' successful experience in the teaching or in the supervision of public schools since graduation; or

2. A holder of a superintendent's certificate issued by the commissioner of education under regulations prescribed by the regents of the University of the State of New York, and have had at least 10 years' successful experience in teaching, or in public-school administration, or equivalent educational experience approved by the commissioner of education.

The superintendent of city schools in the State of New York shall possess, subject to the by-laws of the board of education, the following powers and be charged with the following duties:

1. To enforce all provisions of law and all rules and regulations relating to the management of the schools and other educational, social, and recreational activities under the direction of the board of education, to be the chief executive officer of such board and educational system, and to have a seat in the board of education and the right to speak in all matters before the board, but not to vote.

2. To prepare the content of each course of study authorized by the board of education.

3. To recommend suitable lists of textbooks to be used in the schools.

4. To have supervision and direction of associate, district, and other superintendents, directors, supervisors, principals, teachers, lecturers, medical inspectors, nurses, auditors, attendance officers, janitors, and other persons employed in the management of the schools or the other educational activities of the city, under the direction and management of the board of education, to transfer teachers from one school, or from one grade of the course of study to another grade, and to report immediately such transfers to the board for its consideration and action; to report to the board of education violations of regulations and cases of insubordination, and to suspend any employee until the next regular meeting of the board, when all the facts relating to the case shall be submitted to the board for its consideration and action.

5. To have supervision and direction over the enforcement and observance of courses of study, the examination and promotion of pupils, and over all other matters pertaining to playgrounds, medical inspection, recreation, and social center work, libraries, lectures, and all other educational activities and interests under the management, direction, and control of the board of education.

6. To issue such licenses to teachers, principals, directors, and other members of the teaching and supervisory staff as may be required by the board of edu-

cation in cities in which the board requires its teachers to hold qualifications in addition to or in advance of the minimum qualifications prescribed by law.

Whether or not the powers and duties of city superintendents should be definitely defined by general State law is still a question. The school law should, however, define the more important duties of the superintendent, as does the general education law of the State of New York.

In those States where the school law does not define the powers and duties of the city superintendent of schools, school boards have within the past few years accorded him many of the prerogatives that belong to an executive officer. They have made the office a more dignified one, calling for men with executive as well as with teaching ability.

For this reason a new type of superintendent is coming to the front. Instead of the mere pedagogue, out of touch with the world, there is the practical, scientific administrator who is able to show what the schools are accomplishing. He can show the public how the school funds have been expended. He has developed school accounting so as to indicate with definiteness the purpose for which all money is spent in terms of the particular service secured, and also with respect to the particular division, school, or subject taught. Not until within the past few years did school boards, or, indeed, any individual in the smaller cities, know how school funds were expended. Money was appropriated on a "hit-or-miss" plan. The high-school expenses might be costing four or five times as much per pupil as the elementary grades. The cost of heating 1,000 cubic feet in one building might be several times as much as for another building. Latin might be costing 25 cents per pupil recitation and other subjects only 5 or 6 cents. No one knew. There was no attempt made to find out where every cent of the funds went. There was no attempt at detailed budget making. Now all progressive school boards and superintendents can trace every dollar from the time it leaves the taxpayer until it is expended for the object intended. It is true that in the smaller cities the number of such boards having this information is not large; but it is becoming larger each year.

The new type of superintendent has also learned to show more definitely what children have achieved. He is using more exact measurements, especially for the formal subjects. His annual reports have been much improved, being no longer abstract treatises or a mass of uninterpreted facts. The frankness with which many of the superintendents in the smaller cities set forth conditions is an indication for the better that has come about in the administration of the small city school. For instance, the whole situation regarding the progress of pupils through the grades, the school attendance, and achievement of pupils measured by well-known standards are presented, and recommendations made on the basis of fact.

THE SURVEY IN SCHOOL ADMINISTRATION.

In this connection mention should be made of the improvement of school administration in the small city through the influence of the school survey. Though the immediate results where surveys have been made have not always been all that could be desired, they have, on the whole, been helpful to school administrators. They have at least shown a method of attacking educational problems and they have aroused greater interest in school administration, especially in the approach from the fact side.

Among the small city schools that have been surveyed during the past two years are Brookline, Mass., Elyria, Ohio, Janesville, Wis., Winston-Salem, N. C., and all the cities of Arizona and South Dakota in connection with State-wide surveys.¹

Besides the general surveys, there have been surveys of specific phases of school work. At Fort Dodge, Iowa, a survey was made to discover the chief reasons why so many boys leave the schools of the city before completing the course; in what grades the greatest number of boys drop out; what they do after leaving school; what their earning capacity is; and what readjustments should be made in the courses of study to make them meet the needs of the boys of the community.

At Virginia, Minn., a study was undertaken to determine what is required of boys and girls who seek employment after leaving school. The survey covered not only the trades, such as machinists, plumbers, etc., but all work which requires the employment of men and women, boys and girls. The information for the survey was collected from three sources: (1) Industrial surveys made in various parts of the country; (2) reports and expenses of institutions, both private and public, working along the lines of industrial education; and (3) a survey of the local industries.

As a result of the survey the school board adopted the plan of giving students in the junior high school general work in the various departments of vocational training, work which would be practically the same as that offered under the head of manual training. During this period every effort is to be made to assist the students who are following vocational work to decide which of the courses offered they are best fitted to follow. The senior high school is to be used as the time to specialize in this course or trade, so that at the end of the high-school course the graduate will have had four years of work in the trade which he has selected to follow. It is not the expectation of the school board in adopting this plan that after four years of work in the senior high school the graduate will be a finished

¹ For a discussion of the reports of these surveys, see the chapter on educational surveys, reprinted as Bulletin, 1918, No. 45.

tradesman but that he will simply have made a very good start toward the mastery of his trade.

The survey committee recommended: That the work in the industrial department, both for boys and girls, be made practical; that it be suited to the needs of the industries in the community; that a certain amount of commercial work be brought into the shops; and that experienced men be employed from the industries to teach shop-work. The committee was of the opinion that, while the greater part of the instructors should be experienced workers, it must not lose sight of the fact that teaching others is a profession, and that a few trained teachers should be employed to systematize at least the elementary work of the student and give him a well-rounded education.

The survey, according to the report of the committee, developed the fact very clearly that something has been lacking in the school system. The employers of labor, upon first approach, were skeptical about what the school could do to better conditions in the industries and to train boys to take their places in the industries. They seemed to question the possibility that work of this practical character could be introduced into the schools, but after the committee explained that experienced workers would be employed as instructors and that the employers would be called upon to visit, criticize the work, and give suggestions, they all agreed that the committee was upon the right track, and that this matter should have been considered and put into effect long ago. The fact was also brought out that the students in the community lacked the quality of stick-to-it-ive-ness, and that they overestimated the value and ability of themselves. The employers suggested that it was high time that the school and the community cooperate in bringing about a better spirit toward the work. The survey committee continued its report by making recommendations regarding the work to be done in the schools in respect to the industries of the community.

As a result of the surveys made by persons not connected with the schools surveyed, more superintendents are surveying their own schools. If the outside survey has accomplished nothing more than to cause school men to study their own schools, it has been worth while. Whether surveys by persons outside the school system will continue is a question. One thing is certain—there will be more self-surveys. Superintendents surveying their own schools may call in some one as consulting specialist to help them interpret the facts.

The better type of school report that some superintendents are preparing is evidence that they are analyzing conditions more carefully than before, and that in effect they are surveying their own

schools. There is no reason why a superintendent can not make an exhaustive study of his school system, especially if he has had college courses in school administration and management. He is on the ground all the time and should know conditions better than any one else. The statistical data that the surveyor collects often after much labor should be in the superintendent's office at all times. It should not be necessary for an outside surveyor to spend a week or more collecting data regarding school attendance, progress of pupils through the grades, education and experience of teachers, etc. These should be on file. A superintendent can measure the achievement of pupils by means of standard tests as well as any one else. He has access to the scores made by pupils in other cities and can easily make comparisons and draw conclusions. In the matter of finance he can show unit costs and make interesting comparisons just as effectively as can any one brought in from outside the school system.

Among the late school reports that may be classed as instructive self-surveys are those of Southington, Conn.; Huron, S. Dak.; Globe, Ariz.; Anderson, Ind.; Bristol, Va.; Lawrence, Kans.; and Kane, Pa.

The 1916-17 report of the schools at Huron, S. Dak., discusses organization and administration, physical environment, teaching force, pupil accounting, quality of instruction, pupil achievement, schools costs. The report contains 35 statistical tables and 39 charts to illustrate relation of attendance to enrollment, preparation of teachers, grade distribution, etc.

The superintendent of schools at Lawrence, Kans., in his report for 1916-17, asks and answers 90 questions regarding the schools of that city. Among the questions asked and answered are:

In what proportion does Lawrence apportion school money among the several expense items?

What do these figures show?

What probable future demands will these several items make upon Lawrence?

What changes will this necessitate in the Lawrence budget?

How does the high cost of living affect the schools?

How many children failed of promotion?

How many children skipped a grade?

In what subjects do children make the most failures?

Is Lawrence peculiar in this respect?

What do we know of failures for all the children?

What is the retardation in each building?

Have we any basis of comparison in the matter?

What does the comparison show?

What has been done to improve the situation?

The report thus continues to answer questions that any searching investigator would ask, and which the school patron would wish to know.

SALARIES AND PROMOTIONS OF TEACHERS.

Until within the past two years the educational and professional standards for teachers had been raised slowly until most of the smaller cities required applicants for teaching positions to be high-school graduates with an additional year or two of professional training, or in lieu of such training a year or two of successful experience. In not a few cities the standard has been difficult to maintain, owing to the fact that many teachers have recently left the profession to accept more lucrative positions with the National Government or with private corporations. In many of the schools in smaller cities it is not unusual for a teacher to receive a salary of less than \$600 a year. Since positions elsewhere, paying \$1,000 or \$1,200 a year, were easily obtained, the teaching corps in many of the smaller cities has been almost depleted of its experienced teachers. As a result those less experienced and less well prepared have to be employed. Many married women who taught school 10 or 15 years ago have returned to the classroom. The plan of employing married women who have taught school is to be preferred to that of employing girls just out of high school, from the fact that the married women, though they may not have completed a high or normal school course, have a broader view of life and know children much more intimately. In order that those who formerly taught and who are again taking up teaching may know something of recent developments in educational methods, a superintendent should hold numerous conferences to assist these teachers in gaining the newer point of view in educational methods. As many as possible should be induced to attend summer schools for teachers.

If school boards had increased salaries in proportion to the increase in living expense, there would in all probability not now be such a shortage of teachers. Some, however, would have left the profession, thinking that they could render better service for their country in other lines of work.

In order to keep the schools running some school boards have given teachers bonuses of from \$50 to \$100 a year. Others have granted salary increases ranging from 5 to 35 per cent, the usual increase being only 10 per cent. Salaries in other professions or occupations have increased much more. Although the cost of living has more than trebled, teachers' salaries have remained almost stationary. The schools in many of the smaller cities can not help but suffer because teachers resign to accept more lucrative positions. Resignations of teachers were all too common before the war, few teachers remaining in a city more than five years. Conditions have been going from bad to worse. There is but one way to check this general movement away from the profession—salaries commensurate with the preparation re-

quired and with the exacting demands made upon a teacher's time must be paid. The increase in salary should be at least 40 per cent over the salary paid two years ago. Increases of 5 and 10 per cent have little or no effect in holding teachers who have been offered positions at twice their present salary.

In determining a salary schedule the following principles should be recognized:

1. The teacher at the very least should receive a living wage. This should include enough to allow her to improve herself professionally and to save something each year in anticipation of the time when she must retire from active schoolroom service.
2. The maximum salary should be sufficient to retain the service of the most desirable teachers.
3. In the administration of a salary schedule, superior work should be recognized.

In many of the school systems where merit is a factor in the promotion of teachers, superintendents have devised various plans for grading teachers. Of 780 superintendents reporting, 115 have formulated schemes for grading teachers. Whether such rating plans can be carried out successfully is a question, especially if the rating scheme is a detailed one. If a teacher is to be promoted upon merit, she should know what standards the superintendent has in mind, so that she may attempt to attain them. It is not possible to give examples of all the many standards in use, but a few are presented to show what superintendents and others are attempting to do to develop subjective standards for the testing of teachers. In some of the schemes which enumerate qualities or elements of good instruction the idea is that the qualities enumerated may serve as a basis for self-criticism and self-improvement on the part of the teacher. For instance, the superintendent of schools at Kalispell, Mont., who has prepared a teacher-rating plan, wisely says:

With these standards as a suggestion, teachers need not wait to have weaknesses pointed out to them. Let no one understand that instruction and teaching ability will be judged solely or chiefly on the basis of the factors enumerated. The best part of the teaching process is what has been called "unconscious tuition." The habits the teacher is instilling, the taste she is cultivating, and the appeals she is making to the feeling and the volition of the child are more important than any of these elements. We are more concerned with what the children do than with what the child knows.

The following test is to be used by the teachers themselves to see that they are not overlooking some of the elements of success:

I. Results.

- (a) Development of pupils.
- (b) Growth in subject matter.
- (c) Attention.
- (d) Responsiveness of class.

II. Technique in teaching.

- (a) Organization of subject matter.
- (b) Choice of subject matter.
- (c) Skill in teaching how to study.

II. Technique in teaching—Contd.

- (d) Skill in stimulating thought.
- (e) Definiteness and clearness of aim.

(f) Skill and care in assignment.

III. School management.

- (a) General care of room, blackboards, window shades, waste baskets, floors, etc.

(b) Ventilation.

(c) Care of wraps and wardrobes.

(d) Care of books and supplies.

(e) Care of desks (teacher's and pupils').

IV. Professional equipment.

(a) Understanding children.

(b) Use of English.

(c) Interest in the work.

(d) Manner of reacting on suggestions.

(e) Manner of receiving criticisms.

IV. Professional equipment—Contd.

(f) Loyalty to other teachers and school authorities.

(g) Manner of keeping records.

(h) Times tardy during the year.

(i) Days absent during the year.

V. Personal equipment.

(a) Health.

(b) Voice.

(c) Tact.

(d) Sympathy.

(e) Evenness of temper.

(f) Dignity.

(g) Personal neatness (dress, etc.).

(h) Cheerfulness.

(i) Orderliness.

(j) Winsomeness: appeal to children.

(k) Posture.

To receive promotion in the Kalispell schools beyond \$960 a year a teacher must show marked success. All advancement in salary is upon the recommendation of the superintendent, confirmed by the board of education, which recommendation is conditional on ability to teach, professional spirit, attitude toward the school and the children, spirit of growth, and desire to excel.

At Marblehead, Mass., the teachers are classified by the supervisors and superintendent into five groups, on the basis of the quality of service they have rendered: 1. Those whose work is of so poor a quality that they should be dismissed from the service. 2. New teachers whose work has been unsatisfactory, but who show sufficient promise of growth and improvement to justify further trial. 3. Those who show little, if any, improvement over the work of previous years. 4. Those who are strong teachers and do uniformly good work; who measure up well in all departments and show improvement from year to year. 5. Exceptional teachers whose work is superior; who possess unusual skill in teaching and show a large measure of initiative, resourcefulness, and power in stimulating pupils to achieve the most worth-while of the results that the school seeks to accomplish.

The school board of Ann Arbor, Mich., has prepared a salary schedule to supplement the regular one. After attaining the maximum salary allowed by the schedule, each teacher's salary is to be final for triennial periods. An increase of \$100 above the maximum may be received the second triennial period by meeting, during the first period, the requirements of any one of the following plans:

PLAN I.

- (a) Attendance on at least one annual session of some national educational organization meeting outside of Michigan.
- (b) Attendance on at least one annual session of the Michigan State Teachers' Association meeting outside of Ann Arbor.
- (c) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher.
- (d) Making reports on the meetings attended and the periodicals read as may be required by the executive committee and the superintendent of schools.

PLAN II.

- (a) Gaining eight hours' credit for regular work in any university, college, or normal school, half of which shall not be in subjects or grades regularly taught by the teacher.
- (b) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher, and making reports thereon.

PLAN III.

- (a) Spending two months in foreign travel and reporting as may be required by the executive committee and the superintendent of schools.
- (b) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher, and making reports thereon.

PLAN IV.

- (a) Maintaining during the period a definite line of study that, in the judgment of the executive committee and the superintendent of schools, is equivalent to eight hours of university, college, or normal school work.

- (b) Subscription for and reading of two educational periodicals, one of which shall not be devoted especially to the subject or grade taught by the teacher, and making reports thereon.

Any teacher who has gained the first increase of \$100 may for the ensuing period gain an increase of \$100 more by meeting the requirements of one of the foregoing plans other than the one by which the first increase was gained; but only two such increases shall be possible.

Failure to meet the requirements of some one of these plans during a triennial period will cause the loss of \$100 per year in salary if an increase has already been gained.

Each applicant for increase beyond the maximum of the schedule must notify the superintendent of schools in writing, at the beginning of the school year, of the intention to seek an increase and state which of the plans has been chosen.

In the inauguration of this plan, any teacher who has taught three years or more at the maximum salary and has, during the past three years, met the requirements of any one of these plans, except as to reports, may receive the first increase during the current year, and any teacher who has taught two years or more may receive the first increase for the year after that in which the requirements of any one of the preceding plans have been met.

The following efficiency record, prepared by the department of education of the University of Chicago, is in use in some of the schools reporting the use of subjective standards:

EFFICIENCY RECORD.

DETAILED RATING.....		V.P.	Poor.	Medium.	Good.	Ex.
I. Personal equipment—	1. General appearance.....					
	2. Health.....					
	3. Voice.....					
	4. Intellectual capacity.....					
	5. Initiative and self-reliance.....					
	6. Adaptability and resourcefulness.....					
	7. Accuracy.....					
	8. Industry.....					
	9. Enthusiasm and optimism.....					
	10. Integrity and sincerity.....					
	11. Self-control.....					
	12. Promptness.....					
	13. Tact.....					
	14. Sense of justice.....					
II. Social and professional equipment—	15. Academic preparation.....					
	16. Professional preparation.....					
	17. Grasp of subject matter.....					
	18. Understanding of children.....					
	19. Interest in the life of the school.....					
	20. Interest in the life of the community.....					
	21. Ability to meet and interest patrons.....					
	22. Interest in lives of pupils.....					
	23. Cooperation and loyalty.....					
	24. Professional interest and growth.....					
III. School management—	25. Daily preparation.....					
	26. Use of English.....					
	27. Care of light, heat, and ventilation.....					
	28. Neatness of room.....					
	29. Care of routine.....					
	30. Discipline (governing skill).....					
	31. Definiteness and clearness of aim.....					
	32. Skill in habit formation.....					
	33. Skill in stimulating thought.....					
	34. Skill in teaching how to study.....					
IV. Technique of teaching—	35. Skill in questioning.....					
	36. Choice of subject matter.....					
	37. Organisation of subject matter.....					
	38. Skill and care in assignment.....					
	39. Skill in motivating work.....					
	40. Attention to individual needs.....					
	41. Attention and response of the class.....					
	42. Growth of pupils in subject matter.....					
	43. General development of pupils.....					
	44. Stimulation of community.....					
V. Results—	45. Moral influence.....					
	GENERAL RATING.....					

Recorded by..... Position..... Date.....

EXPLANATION OF TERMS.

I. Personal equipment includes physical, mental, and moral qualities.

1. *General appearance*—physique, carriage, dress, and personal neatness.
3. *Voice*—pitch, quality, clearness of schoolroom voice.
4. *Intellectual capacity*—native mental ability.
5. *Initiative and self-reliance*—independence in originating and carrying out ideas.
7. *Accuracy*—in statements, records, reports, and school work.
10. *Integrity and sincerity*—soundness of moral principles and genuineness of character.
13. *Tact*—adroitness, address, quick appreciation of the proper thing to do or say.
14. *Sense of justice*—fair-mindedness, ability to give all a "square deal."

II. Social and professional equipment includes qualities making the teacher better able to deal with social situations and particularly the school situation.

15. *Academic preparation*—school work other than professional. Adequacy for present work.
16. *Professional preparation*—specific training for teaching. Adequacy for present work.
17. *Grasp of subject matter*—command of the information to be taught or the skill to be developed.
18. *Understanding of children*—insight into child nature; sympathetic, scientific, and practical.
22. *Interest in lives of pupils*—desire to know and help pupils personally, outside of school subjects.
23. *Cooperation and loyalty*—attitude toward colleagues and superior officers.
24. *Professional interest and growth*—effort to keep up to date and improve.
26. *Use of English*—vocabulary, grammar, ease of expression.

III. School management includes mechanical and routine factors.

29. *Care of routine*—saving time and energy by reducing frequently recurring details to mechanical organization.
30. *Discipline (governing skill)*—character of order maintained and skill shown in maintaining it.

IV. Technique of teaching includes skill in actual teaching and in the conduct of the recitation.

31. *Definiteness and clearness of aim*—of each lesson and of the work as a whole.
32. *Skill in habit formation*—skill in establishing specific, automatic responses quickly and permanently; drill.
33. *Skill in stimulating thought*—giving opportunity for and direction in reflective thinking.
34. *Skill in teaching how to study*—establishing economical and efficient habits of study.
35. *Skill in questioning*—character and distribution of questions; replies elicited.
36. *Choice of subject matter*—skill with which the teacher selects the material of instruction to suit the interests, abilities, and needs of the class.
37. *Organization of subject matter*—the lesson plan and the system in which the subject matter is presented.
39. *Skill in motivating work*—arousing interest and giving pupils proper incentives for work.
40. *Attention to individual needs*—teacher's care for individual differences, peculiarities, and difficulties.

V. Results include evidence of the success of the above conditions and skill.

41. *Attention and response of the class*—extent to which all of the class are interested in the essential part of the lesson and respond to the demands made on them.
42. *Growth of pupils in subject matter*—shown by pupils' ability to do work of advanced class and to meet more successfully whatever tests are made of their school work.
43. *General development of pupils*—increase in pupils' ability and power along lines other than those of subject matter.
44. *Stimulation of community*—effect on life of the community, tending to improve or stimulate its various activities.
45. *Moral influence*—extent to which the teacher raises the moral tone of the pupils or of the school.

Since school superintendents in the State of Indiana are required by law to issue over their own signature and deliver to the teachers under their supervision each year a statement of the success of each teacher, and such success grade shall be the teacher's legal success grade from one year from date of issuance, superintendents in that State use the rating system provided by the State law or a modifica-

tion of it. The following schedule of success items is in use at Elkhart:

SCHEDULE OF SUCCESS ITEMS.

I. Teaching Ability -----	55%
A. Professional attainment----- (20%)	
1. Scholastic preparation.	
2. Professional training.	
B. The recitation----- (15%)	
1. Preparation of teacher and pupils.	
2. Appropriateness of subject matter.	
3. Definiteness of aim and purpose.	
4. Skill in questioning.	
5. Progression in plan.	
6. Care in assignments of lessons.	
7. Balancing of lines of work.	
C. Results in scholarship of pupils----- (20%)	
1. Acquisition of facts and relations.	
2. Accuracy.	
3. General information.	
4. Awakening of scholarly interests.	
5. Clearness and elegance of expression.	
II. Governing and Disciplinary Ability -----	30%
A. Moral and social influence on pupils and community ----- (10%)	
Ability to develop in the pupils the altruistic virtues—recognition of law and social rights.	
B. Ability to develop egoistic virtues—industry, honesty, reliability, fidelity, etc.----- (10%)	
C. Personality and appearance of teacher----- (10%)	
Personal and moral worth and influence, habits, disposition, health, attire, sympathy, energy, manliness or womanliness, honesty, etc.	
III. Professional and Community Interest -----	15%
A. Cooperation with other teachers and with supervisors----- (5%)	
B. Interest in aims and plans of school community----- (5%)	
1. Care of school property—	
a. Protection of supplies and furniture.	
b. Neatness.	
c. School decoration.	
2. Building up of strong school sentiment in the community.	
3. Educational, literary, or social club work.	
C. Professional pursuits----- (5%)	
1. Present lines of professional study.	
2. Reading of educational literature.	
3. Attendance upon summer schools, institutes, and associations.	
Total-----	%

The following is a schedule of success items provided by the superintendent of public instruction of Indiana according to the school law of that State:

	Per cent.
A. Teaching power.	45
Many items enter into this, but the principal ones are training of teacher, preparation of lessons, skill in presentation, results obtained.	
B. Government.	35
The teacher's power in government is shown in the general spirit of the school and in the attitude of the pupils toward their daily tasks, toward each other, and toward school property.	
C. General characteristics.	20
Under this head the personality of the teacher, his community interests, and all those qualities that make for the best citizenship are considered.	

Salary schedules prepared by teachers.—Some superintendents, in conjunction with their teachers, have prepared salary schedules based upon merit. Such a schedule was prepared by a committee of teachers and the superintendent of schools of Columbus, Miss. Teachers are divided into the following classes:

- Class A—Superior. A teacher whose work is exceptional. A teacher possessing unusual skill, resourcefulness, and power to stimulate pupils to achieve the best results the school seeks to accomplish.
- Class B—Good. A teacher whose work is satisfactory and improving from year to year. A strong teacher.
- Class C—Fair. A teacher showing little improvement from year to year. A teacher who has practically ceased to grow and whose service is doubtful, whose work is uneven and inconsistent. Work strong in some things and weak in others.
- Class D—Unsatisfactory. A new teacher whose work is unsatisfactory but who gives promise of improvement and growth.
- Class E—Inexperienced. A teacher who is entering the profession, or one whose experience is insignificant and unworthy of recognition.
- Class F—Poor. A teacher whose service is poor and should be dismissed.

All teachers are classified by their principal in the following items:

1. *Personal qualifications.*—Health, voice, appearance, enthusiasm, etc.
2. *Professional ability.*—Knowledge of subject matter, knowledge of children, daily preparation, etc.
3. *School management.*—Discipline, system, attention to routine, etc.
4. *Teaching skill.*—School spirit of pupils and teacher, skill in conducting recitation, character of work of pupil, etc.
5. *Results.*—Knowledge gained, power to use knowledge, etc.

The school board of Evanston, Ill., made a decided departure from the usual method of formulating salary schedules when it suggested to the teachers that they appoint a committee of their own number to discuss, formulate, and recommend changes which, in their opinion should be made in the salary schedule of the teachers of that

city. Acting on this suggestion the teachers in each building and the principals as a group selected one of their number to represent them on the committee. This resulted in a committee of nine, which held a number of conferences to discuss the various phases of the salary schedule. After every conference the arguments presented and the conclusions reached were reported by each member to the teachers they represented. The school board after making a few minor changes adopted the recommendations of the committee of teachers.

The committee recommended that a salary schedule should be based upon the following principles:

1. The salary of a teacher at the very least should be enough to provide a living wage. It should enable a teacher to do the reading and pursue such studies as are necessary to keep her in touch with the progressive movements in education in this and other countries. In addition it should permit her to save something each year to provide for the time when she must of necessity retire from active schoolroom service.

2. The maximum salary should be sufficient to retain the services of the most desirable teachers, as well as to induce teachers of highest quality to seek positions in the Evanston schools. It is safe to say that this community demands and is willing to pay for the best possible instruction and training for its children.

3. The administration of a salary schedule should result in stimulating teachers in the service to develop to the highest degree whatever teaching power they possess. Superior work should be recognized and rewarded. Teachers should be classified according to the quality of service rendered and not alone on the basis of their years of service.

4. The basis for classifying teachers as to their teaching efficiency should be systematized, rationalized, and controlled. There should be something definite to show upon what the judgment is based; evidence should be available to support the final rating. The factors on which a teacher is judged should be carefully selected so as to include the really vital elements. The terms used should be so clearly defined that the teacher will not be in doubt as to what is expected of her. It is of the highest importance that the items listed be understood by those who use them. Confusion and misunderstanding are inevitable if the supervisor rating and the teacher rating have a different interpretation of their meaning. The rating schedule should enable a teacher to analyze her own work, to discover her own strength and weakness, and to find out how best to remedy the defects in her teaching.

5. Salary increases should be based on the quality of service rendered as shown by the rating of the teacher's efficiency. In teaching as in other lines a "wage should be a gauge"—more pay should mean larger or finer service. Mediocre service should not be rewarded by increase in salary, lest all service, including the best, shall suffer from withdrawal of efficiency rewards. Increases of salary should be conditioned upon demonstrated increased classroom efficiency.

In applying the basic principles which it announced the Evanston teachers' committee urged that the board of education adopt (*a*) a plan for rating teachers according to the quality of the service which they render; (*b*) that as a result of the rating, definite classifications be established, and that these determine the pay of individual

teachers; (c) that a specified salary rate be adopted; and (d) that a well-determined plan be adopted for the dismissal of the unfit.

The purpose of the rating plan, as outlined by the teachers, is—

1. To determine the quality of teaching, as a basis for selecting (a) those who are deserving of promotion with increased salaries; (b) those who are to be retained without salary increases; and (c) those who should not be retained in service.

2. To help teachers discover their own strength and weakness and to remedy existing defects in their work.

The following tentative basis for rating teachers was recommended:

TENTATIVE BASIS FOR RATING TEACHERS.

I. Personal qualities:

1. General appearance.
2. Health.
3. Voice.
4. Tact.
5. Intellectual capacity.
6. Reliability
7. Initiative.
8. Self-control.
9. Enthusiasm.
10. Sincerity.

II. Social and professional ability:

1. Preparation, academic, and professional.
2. Professional interest and growth.
3. Grasp of subject matter and daily preparation.
4. Use of English.
5. Understanding of and interest in children.
6. Relation to associates and school life.
7. Relation to parents and community.

III. School management:

1. Character of discipline.
2. Guarding physical welfare of children.
3. Schoolroom housekeeping.
4. Attention to routine.

IV. Teaching technique:

1. Factors affecting recitation:
 - (a) Physical conditions.
 - (b) Attitude of pupil to work.

IV. Teaching technique—Continued.

1. Factors affecting recitation—Continued.
 - (c) Attitude of pupil to teacher.
 - (d) Attitude of teacher to pupil.
2. Activities of the teacher:
 - (a) Securing and retaining attention.
 - (b) Selection and organization of subject matter.
 - (c) Motivation.
 - (d) Character of questions.
 - (e) Character of illustrations.
 - (f) Clearing up pupils' difficulties.
 - (g) Attention to individual needs.
 - (h) Capitalizing child's experience.
 - (i) Stimulating initiative.
 - (j) Courtesy to pupils.
3. Activities of pupils:
 - (a) Character of responses.
 - (b) Organization of material—differentiating between essentials and nonessentials.
 - (c) Independent thinking and self-reliance.
 - (d) Cooperation with teachers and other pupils.

IV. Teaching technique—Continued.

3. Activities of pupils—Contd.
 - (e) Character and extent of questions by pupils.
 - (f) Character and extent of field work.
4. Assignment of lesson:
 - (a) Definiteness and clearness.
 - (b) Adequacy of preview.
 - (c) Presentation of values.
 - (d) Reasonableness and provision for exceptional pupils.

V. Results:**1. Gain in subject matter.**

1. The scale of 1 to 10 is used for the sake of convenience to indicate the extent to which a quality exists. Such a marking is relative; it can not, of course, be considered an absolute measure. A mark of 10 in self-control, for example, does not mean 100 per cent or perfect self-control, but rather that the person so marked possesses self-control in an unusual degree, while a mark of 1, 2, or 3, would indicate the lack of it.

2. The qualities listed are not considered of equal value, neither does the scale show their relative value. It is obvious however, that some of these qualities should have vastly more consideration than others in determining the general rating of a teacher.

3. The general rating of a teacher therefore can not be found by adding up the numbers set opposite the different items. A teacher's general rating may be low, although she is marked very high in many of the items listed.

4. It is recognized that differing standards of excellence in the minds of different judges must result in differences in judgment. These standards so far as possible should be standardized and made objective. Standards can be established only through experience and long use of the scale, with such changes and modifications as are found to be needed.

5. In all cases it is a prime essential that a teacher shall be told and shown the basis for the rating in any particular, as well at the final general classification she is given.

All teachers at Evanston are to be classified by the supervisors and finally by the superintendent into five groups, on the basis of the quality of service they have rendered. Five groups are suggested:

1. Those whose work is of so poor a quality that they should be dismissed from the service.

2. New teachers whose work has been unsatisfactory, but who show sufficient promise of growth and improvement to justify further trial. Frequently, it happens that a teacher who has done excellent work elsewhere finds it difficult within a year to adjust herself to new conditions, to new demands, and to standards which differ from those to which she has been accustomed.

3. Those who show little, if any, improvement over the work of previous years. The results obtained may be fairly satisfactory, but the fact that a teacher is reaching the point where she ceases to grow and improve, places her in the doubtful class. The work of a teacher in this group soon deteriorates and

V. Results—Continued.

2. Power to use and apply knowledge gained.
3. Powers of initiative and persistence.
4. Powers of independent judgment and reason.
5. Attitude toward school.
6. Habit of testing results.
7. Skill in performance.
8. Development of character qualities.
9. Development of social mindedness.
10. Influence in community.

her value is greatly reduced. Teachers whose work is uneven or not consistent—strong in some lines but weak in others which are essential, should be classified in this group.

4. Those who are strong teachers and do uniformly good work; who measure up well in all departments and show improvement from year to year.

5. Exceptional teachers whose work is superior; who possess unusual skill in teaching and show a large measure in initiative, resourcefulness and power in stimulating pupils to achieve the most worth while of the results the school seeks to accomplish.

It was recommended by the committee of teachers and adopted by the board of education that the minimum salary should be \$75 and the maximum salary \$1,500, and that increases should be granted as follows:

For teachers classified in—

- (a) Group 1—no increase; teacher dismissed.
- (b) Group 2—no increase; teacher retained for further trial.
- (c) Group 3—\$25 increase.
- (d) Group 4—\$50 increase.
- (e) Group 5—\$75 increase, or more, the merits of each case to be considered and decided individually.

The initial salary for any teacher is based on the character of the teacher's academic and professional equipment, the quantity and quality of her previous experience, and the salary she has been able to command in her former position.

DUPLICATE SCHOOLS.

Sufficient data are not at hand to say whether there is any general movement in the smaller cities to adopt duplicate schools. Several superintendents report that they are experimenting with such school with good results. The duplication school at Monessen, Pa., may be given as an example of the possibilities of such schools. One of the eight-room buildings in that city has been converted into a duplicate school. To the original building of eight rooms there were added a gymnasium, auditorium, domestic science, manual training, art, music, nature study, and application rooms, and a community room and library.

The use of the eight regular classrooms and the eight special rooms during every part of the school day gives the pupil the advantages of special activities and special teachers without the disadvantages of extra room occupied only part of the time.

All the drawing is taught by one teacher in the art room, which is arranged especially for the work. All the music is taught by a special teacher in the music room. A teacher is in the gymnasium the entire school day, and the different classes go to the gymnasium for their physical exercises. While the boys of two classes are in the manual-training room, the girls of the same two classes are in

the domestic-science room. The teacher in the library or reading room teaches the supplementary reading to the first, second, and third grades, and all the reading to the fourth, fifth, and sixth grades. The basal reading in the primary grades is taught in the regular classrooms. Spelling, writing, English grammar, arithmetic, history, and geography are taught by regular teachers in the classrooms. Under the direction of the teacher of expression the pupils are taught story-telling, dramatization of stories, and other oral English work. Hygiene and sanitation and nature study are taught by a special teacher in the nature study and application room. This puts number work into practice by playing store, for which sets of measures and weights, toy money, and different packages of goods have been supplied. There are no pupils beyond the sixth grade in the duplicate school. The following program explains the operation of the school:

PROPOSED PROGRAM FOR THE IOWA BUILDING.

September, 1917.

	8.50-9.40	9.40-10.20	10.20-11.00	11.00-11.45
I B1.	Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.		Classroom.
I B2.		Classroom.	Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.
I A1.	Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.		Classroom.
I A2.		Classroom.	Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.
II B.	Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.		Classroom.
II B. II A.		Classroom.	Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.
II A.	Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.		Classroom.
III B.		Classroom.	Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.
III B. III A.	Art, Tu. Th. Phy. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.		Classroom.
III A.		Classroom.	Art, Tu. Th. Phy. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.
IV B.	Art, M. W. F. Phy. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.		Classroom.
IV A.		Classroom.	Art, M. W. F. Phy. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.
VB.	Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phy. Ed., M. W. F.		Classroom.
VA.		Classroom.	Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phy. Ed., M. W. F.
VIB.	Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phy. Ed., Tu. Th.		Classroom.
VIB.		Classroom.	Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phy. Ed., Tu. Th.

Noon intermission, 11.45-1.15. Boys may take art while girls are taking physical education. Girls may take art while boys are taking physical education.

PROPOSED PROGRAM FOR THE IOWA BUILDING—Continued.

	1.15-1.55	1.55-2.35	2.35-3.15	3.15-3.55
IB1.	Art, Tu. Th. Phys. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.		Classroom.
IB2.		Classroom.	Art, Tu. Th. Phys. Ed., M. W. F.	Music, M. W. F. Lib., Tu. Th.
IA1.	Art, M. W. F. Phys. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.		Classroom.
IA2.		Classroom.	Art, M. W. F. Phys. Ed., Tu. Th.	Music, Tu. Th. Lib., M. W. F.
IIB.	Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phys. Ed., M. W. F.		Classroom.
IIIB. IIIA.		Classroom.	Music, M. W. F. Lib., Tu. Th.	Art, Tu. Th. Phys. Ed., M. W. F.
IIIA.	Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phys. Ed., Tu. Th.		Classroom.
IIIB.		Classroom.	Music, Tu. Th. Lib., M. W. F.	Art, M. W. F. Phys. Ed., Tu. Th.
IIIB. IIIA.	Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.		Classroom.
IIIA.		Classroom.	Exp., M. W. F. Nat. S. App., Tu. Th.	Handwork.
IVB.	Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.		Classroom.
IVA.		Classroom.	Exp., Tu. Th. Nat. S. App., M. W. F.	Handwork.
VB.	Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.		Classroom.
VA.		Classroom.	Handwork.	Exp., M. W. F. Nat. S. App., Tu. Th.
VIB.	Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.		Classroom.
VIB.		Classroom.	Handwork.	Exp., Tu. Th. Nat. S. App., M. W. F.

In grade 5, for example, the 5A pupils are in the regular classroom from 8.50 to 10.20, and during the period from 10.20 to 11.45 they are in one or more of the special rooms. During the period 8.50 to 10.20 the 5B pupils are in one or more of the special rooms, and during the period 10.20 to 11.45 they are in the regular classroom.

The superintendent of schools at Monessen summarizes the advantage of the duplicate school as follows:

It furnishes special teachers for special subjects, like music, drawing, physical culture, domestic science, and manual training.

It provides these special activities at a less cost by having all rooms occupied at all times.

It provides library and reading facilities that we can not have in another school.

It provides better for the exercise of the pupils' natural activities.

In the application room and the handwork rooms the pupil has an opportunity to put into practice his arithmetic, and in the expression room or story-telling and dramatizing room he has an opportunity for practical oral English.

Our experience so far shows that the children prefer to go to this school.

SUPERVISED STUDY.

A few years ago the attention of teachers was called to the fact that many children fail because they do not know how to study. Not a few superintendents have, within the past few years, rearranged the daily program in both the elementary and the high school so that teachers may have an opportunity to supervise the study of pupils. Supervised study may no longer be considered an experiment. The interest in it has become such that several books and numerous magazine articles have been written on the subject. Teachers' associations and institutes have taken it up as one of the vital problems in school management.

The purpose of supervised study is to shift the emphasis from the recitation period to the study period and to give more attention to methods of study and less attention to testing the pupils to find out how much they remember of the text. A recitation of 10 minutes after 30 minutes of supervised study is no doubt better than a recitation of 30 minutes after 10 minutes of study, the amount of time some pupils give to the studying of a lesson. Since good habits of study are more desirable than the mere accumulation of facts, one of the important functions of the teacher is to teach children how to study.

The results of supervised study have been reported as good. The superintendent of schools at Foxcroft, Me., who made trial of this method in the elementary grades, reports:

Many of the supposedly dull pupils manifested unusual ability after a short time, due to the confidence caused by class discussion and better methods of study. Nonpromotions were diminished, and a better standard of work was obtained in both divisions. The dull pupils were not outstripped in coming to conclusions by the bright ones; neither did the quicker pupils have to wait for explanations that were needless to them. At the end of the year the class came nearer to being all on the same level than they could possibly have been with all pupils in the same group.

The superintendent of schools at Madison, Ind., who has introduced supervised study into his schools, has distributed to the pupils the following suggestions as to methods of study which should prove helpful, especially if the teacher encourages and assists her pupils to follow the suggestions:

SUGGESTIONS.

1. Make out a regular study program at the beginning of the term for both school and home study. A regular study program saves time, prevents idleness, presents a definite task for each period of the day, assures preparation of each lesson, shows the necessity for home study, and tends to create habits of regularity along all lines.
2. If possible arrange to study a subject immediately following the recitation in the subject.
3. Follow your study program regularly every day. Never make an exception to this rule.
4. Begin to work at the beginning of the period. Do not waste time.
5. Provide yourself with the material the study of the lesson requires at the beginning of the study period.
6. Begin by reviewing the chief points in the last recitation in the subject to be studied.
7. Study the assignment. Be sure you understand it and know what you are expected to do.
8. Concentrate on the work to be done. Do not let other things attract your attention. When you study make a serious business of it. Do not dilly dally.
9. Read the lesson through as a whole and get the general idea.
10. Study each paragraph, topic, or problem in detail. Understand it before going to the next.
11. Make use of the dictionary, reference books, maps, and all aids available.
12. Stop frequently and think over what you have read. Relate the new ideas to old ideas of a like nature.
13. Make a brief written outline of the chief points. Close the book and think through the lesson following the outline.
14. Review often. Memorize important data.

THE WAR AND THE SMALL-CITY SCHOOLS.

Schools in the smaller cities have been influenced by the war in practically the same way as those in the larger cities. The former as a result of the war have in some respects suffered more and in other respects they have made more advancement relatively than the latter. In the small city there has been a greater shortage of teachers, owing to the fact that salaries in most of these cities are much less than in the larger cities. The selective draft called more men from the schools of the small cities than from the large, since most of the male teachers in these schools are within the draft age. In some respects the small-city schools have made more progress relatively than the large-city schools. Prior to the war not a few of the former confined their attention chiefly to the academic subjects. Now most

of them have introduced industrial, home economic, and commercial courses. Many have organized night schools for adults and especially for the foreign-born adult.

The war has modified the course of study by relating it more intimately to actual conditions. Schoolmen realized that the teaching of the war should not be deferred until after the historian has arranged the events in chronological order and has sifted and interpreted the facts. Practically every school in the smaller cities has been teaching the causes of the war. Many schools have followed the movements of the armies from day to day by means of bulletin boards. Discussions in connection with lessons in history, geography, English composition, and literature have been common. Incidental instruction regarding the war can and should be provided through the opportunities offered by the regular school subjects. It has been found that a good time to impress the causes and events of the war upon the minds of the children is when Liberty Loans are being floated and when subscriptions for the Red Cross are being solicited. However, if definite results are to be obtained, instruction regarding the war must be more than incidental, incidental instruction in school subjects having proved a failure. There must be systematic instruction, there must be some aim, and not the teaching of a few unrelated facts here and there, and now and then, in connection with the other school subjects.

Some schools have made a systematic study of the war by means of an outline prepared under the direction of the superintendent. Such an outline prepared by the superintendent and teachers at Fargo, N. Dak., may be given as an illustration of what it is possible for a school to do to make a systematic study of the war. The outline was prepared to suit the different grades. The outline for the sixth grade is given herewith:

OUTLINE OF WAR STUDY AT FARGO, N. DAK.

I. The Army.

1. Regular.
2. National Guard.
3. National Army (first call).

II. The geography of the warring nations.

III. Social and political conditions among the warring nations.

1. Suffrage.
2. Condition of—
 - (a) Poorer classes. Day laborers; wages.
 - (b) Middle classes.
 - (c) Upper classes.
3. Class distinctions.
4. Opportunities for the common people.
5. Position of women.

III. Social and political conditions among the warring nations—Continued.

6. Government.
7. Compare with the United States.
8. Immigration to the United States. Why?

IV. Military organizations of—

1. Germany.
2. Austria.
3. Russia.
4. Italy.
5. France.
6. England.
7. United States.

V. The Hague Tribunal.

1. Its history.
2. Attempts at arbitration.
3. Attempts at disarmament.

VI. The Monroe Doctrine. Attitude of Germany toward it.**VII. The war.**

Why we are in the war.

- (a) Invasion of Belgium.
- (b) Sinking of the *Lusitania*; President's message.
- (c) Sinking of the *Sussex*; President's message.
- (d) Submarine warfare.
- (e) Making the world safe for democracy.

VIII. The naval battle of Heligoland, illustrating use of dreadnaughts, battle cruisers, torpedo-boat destroyers, torpedo boats, and submarines.**IX. Movement for peace.**

1. The Hague Tribunal. The work of Carnegie.
2. Czar of Russia and his disarmament proposition.
3. Treaties made upon the advice of Mr. Bryan.

X. The Red Cross.

1. Its history.
2. Its purpose.
3. Tell the story of Florence Nightingale. Read the poem to her by Longfellow.

XI. Y. M. C. A. Its purpose in relation to the war.**XII. Conservation.**

Elimination of waste:

- (a) Clean plate and empty garbage can.
- (b) Quit feeding useless pets.
- (c) Getting full value for money.
- (d) Government fixing prices.

XIII. Tell how the different countries finance the war.

The war has modified the method of teaching many of the school subjects. The teaching of English composition has been vitalized through the discussion of topics relating to the war. Compositions based upon some event of the war have taken the place of those on topics in which the pupil had no, or at least only a remote, interest. One of the most powerful means of vitalizing instruction in English has been the Junior Four Minute Men talks. New meaning has been given to history and geography by teaching about present-day hap-

penings and the work the world is now doing. In the manual training shop and in the home economics rooms a motive now prevails, while heretofore the pupils in many schools in the smaller cities did "exercises" in manual training and in cooking and sewing. Now they are making things in the manual training shop that have a real use. Sewing is for some purpose, making material for the Red Cross; cooking has been put on a more rational basis, the children being taught food values and food conservation. The art teacher has likewise vitalized her work. Instead of mere exercises, she has had her pupils make posters for Liberty Loan, War Saving Stamp, and Red Cross campaigns. There is scarcely a school subject that has not been made more alive by relating it to actual conditions. The principle that school work should be related to life has long been advocated and but little practiced. The war has been a means of relating school work to life.

Before the war the smaller city schools as a rule gave but little attention to home gardening under the direction of the schools. A few were, however, experimenting with this kind of school work. In almost a day practically every small city school system became interested in gardening under the direction of a supervisor. Many teachers have volunteered their services during the summer months. In some places the supervisors are employed by the school board. This is the better plan. In a very small city the principal of schools could well devote part of his time to the supervision of home gardening. In other cities the instructor of science or teachers especially interested in nature study should be employed for the entire year, so that during the summer months they may supervise the garden work.

Most of the small-city schools report that they have dropped German from the high-school course of study. In those schools in which German has been the only modern foreign language offered, French or Spanish has been substituted. Owing to our close relations with the French people and our interest in them, the teacher of the French language now has an opportunity to vitalize the subject which she has never had before. Many children will be interested in learning the language so that they may write letters in French to their brothers or friends now in France, and they will be interested in learning to speak the language so that they may converse in French with those returning from France. These motives, it is true, are not the real ones for studying the language, but they are so near that the teacher can not afford to neglect them.

Within the last few years physical training has received a powerful impulse. Of the schools reporting, practically all have taken steps toward the better care of the child's health. Some have intro-

duced military training, others have introduced systematic physical education. Many have employed a school physician or nurse, or both. Greater advancement has been made in the schools of the States of New York and New Jersey than elsewhere, owing to the fact that the State law in each of these States requires physical training as a part of the course of study. As good results may be expected in the other States that require physical training. In those States where no such law has been enacted the more progressive cities have made physical training a part of the school work. Since such training has been found to be necessary, the State should require it of every school and not leave its adoption to local initiative, because some cities never will have initiative enough to introduce a course in physical training. It is sound theory that the State should require every school to teach those subjects that are of most value to the individual and to the State and not leave the introduction of vitally important subjects to the whims of a local community. Every State requires that reading, writing, and arithmetic be taught, these being considered the "tools," and that it is necessary for every one to have a thorough mastery of them, so that they may have the means of becoming intelligent citizens. Every State should require physical training of every child so that he may become an efficient citizen. Not until this is done will small city schools introduce systematic physical training, though the war has made the need of such training apparent.

Thus we might continue to enumerate the influence of the war upon the schools. In brief, every school in the smaller cities has engaged in some kind of war work. In some of these the schools have undertaken to do everything that was suggested—Red Cross work, selling Liberty Bonds and Thrift Stamps, demonstration lessons in food conservation, gardening, etc. Through the school children much of the information regarding the war, food conservation, etc., has been disseminated.

Though the war has entered the schools, school men have not been unmindful of the fact that a state of war is unnatural and that the fundamental studies ought not to be crowded out by war activities. Superintendents and teachers have, however, found that they can vitalize the regular school subjects by introducing the war into the schools. They have found that the war offers an opportunity to train children in the service of the State. It is true that in peace time opportunity exists for the same kind of training, but the immediate need is not so keenly felt.

CHAPTER VI.

RURAL EDUCATION.

By H. W. FOEHT,
Specialist in Rural School Practice.

CONTENTS.—Introductory—Administration and supervision of rural schools—Increased financial support for the rural schools—Teachers' salaries—Organisation of the rural schools—Growth in rural high schools—Vocational education and the Smith-Hughes Act—The rural school course of study—Status of teachers for the rural schools—National Rural Teachers' Reading Circle—Commissions and committees organized for the advancement of rural education and life—Rural-school surveys—Publications on rural education of the Bureau of Education.

INTRODUCTORY.

Rural education and the war emergency.—The war has served to accentuate many marked weaknesses in our rural school system. For years devoted leaders in this important educational field have carried forward a propaganda to enlist local and national interest in the matter, and not altogether without success. In many sections of the country splendid schools have been organized that fit into every requirement of modern agricultural communities. Whole States are going through the process of reorganizing the primitive one-room schools for effective rural leadership; but, unfortunately, it can not be said that this movement has yet gone far enough to affect rural education fundamentally for the Nation as a whole.

The annual reports of the Commissioner of Education disclose that about one-half of the Nation's children are enrolled in the village and open-country schools. These twelve million children are laboring under distinct educational disadvantages. So far as the open-country schools are concerned, fully two hundred thousand of these schools may still be classed as one-room schools of pioneer type, which but poorly meet the needs of modern agricultural life. Their teachers are largely immature, inexperienced, poorly trained, and of limited vision of rural needs and problems. The school year is much shorter than it ought to be, enrollment of school population is in many States low, daily attendance is often irregular, and compulsory-attendance laws are not always enforced as they should be. The course of study in the small schools is often badly planned and the subjects poorly taught, and financially they are meagerly supported in comparison with what is invested in education elsewhere. Recent educational surveys have disclosed that in certain States the level of school education must be measured by about six and one-half years

of school attendance for the villages and less than five years for the rural districts. Such limited education can not furnish the intelligent leadership required at this present time of entrance upon the new era of scientific agriculture.

A general reconstruction of rural education likely.—The world war brought home to the general public what educators have long known, that there are in the United States between five and a half and six million illiterate adults, and that more than one-half of these people live in rural sections where there are little or no school facilities. Likewise, there is a public realization that a large proportion of the ill-taught millions of aliens live in rural communities, left there largely to their own resources and inclinations in educational matters. In many States they are grouped in large settlements speaking foreign tongues and using their native language as a medium of instruction in the schools. This has delayed the assimilation process and has been at the root of many un-American practices disclosed by the war.

The war emergency, therefore, found rural education poorly organized to cope with the serious problems of war and the period of reconstruction that will follow the war. The period of isolation in American rural life is gone, and the period of international commercial agriculture is at hand. This demands an organized agricultural life based on the right type of educated leadership, and this can come only through the best kind of rural school education. The returning soldiers who have dealt with large issues, and others who have been drawn into great measures of industrial efficiency for war and peace, will not be content to go back to the old ways in rural communities. What is more, the women who have remained at home have in a measure stood still educationally while the men have grown. They also need the vitalizing influence of a new, much-embracing education.

Federal aid for rural education.—The problem of education in rural communities has attained too vast a magnitude to be left entirely to local and sectional control. The war emergency attracted many of the best teachers into Government activities; the draft called many of the men teachers to their country's standard. This left the rural schools shorthanded and manned largely by inexperienced teachers. To remedy these serious conditions is too much for the ordinary locality. It is a matter for national consideration. As it is national in scope, it requires national aid for satisfactory solution. Federal cooperation and financial aid for the development of rural education might well be extended to the several States on the basis of real merit, to include the following:

1. All-year schools organized to meet the needs of all the people, young and old alike.

2. Teachers of good academic and professional preparation and broad teaching experience.

3. Teaching process preparing the people to meet their responsibilities and opportunities of citizenship and helping them make a good living from the land.

ADMINISTRATION AND SUPERVISION OF RURAL SCHOOLS.

Progress in the administration of rural schools.—School organization in the United States has developed from the needs of community life in the different sections of the country. In pioneer days school organization was wholly a community enterprise, each group of families organizing and supporting its own school as best it could. From these often far-separated group centers, school organization began as an outward development, coinciding as a rule ultimately with the geographical unit established for civil administration. Historically this has given the country three distinct types of school organization—district, town (township), and county.

The district, which was the original pioneer organization, still prevails in many sections of the country, chiefly in the Middle West and West. The town organization is the basis for school administration in all of New England, Pennsylvania, Indiana, and parts of Michigan, Iowa, and South Dakota. The county unit has prevailed from the first in the South and has more recently been extended in some form to several Middle Western and Western States.

The district unit, which in the early days was the only kind of organization possible, has largely outlived its usefulness as a unit of school organization and administration. Unquestionably it is the cause of much of the inefficient and ineffective schools to be found in many sections. In the States organized on the district basis the prevailing tendency is toward the county unit, which, if rightly organized, offers a large enough area for the introduction of equitable taxation and equalized educational opportunities.

However, the county unit must be planned to allow patrons of the schools a certain amount of local initiative and responsibility or it will fail because of too much central control, as the district unit has failed because of too much local control. Several States that are organized on the county basis have placed all educational matters, including taxation, in the hands of the single county board of education, leaving the local school communities without any direct representation or right to levy local taxes. This has proved an unfortunate practice in many places. The best plan appears to be to retain a representative for each school community who shall represent the needs of his own school before the county board. Likewise, while the county should properly be the unit for general taxation for ordi-

nary school maintenance, every local school community should have the right of taxation for extraordinary purposes, such as improving its school plant, buying sites and lands for agricultural experimentation, increasing teachers' salaries above the county maximum, etc.

At the present time 19 States are organized wholly or in part on the county unit basis for school administration. Of these Alabama, Florida, Georgia, Kentucky, Louisiana, Maryland, North Carolina, Tennessee, Utah, and New Mexico may be classed as of the pure county type; that is, in which practically the entire management of the schools rests with the county board of education, with such local assistance as has proved most advantageous. New Mexico is the last State to adopt the county unit. In 1915 the State legislature passed a county unit bill for tax purposes, and the legislature of 1917 made the county the unit for all administrative purposes as well. Says State Supt. J. Howard Wagner, speaking of the success of the new plan:

We now have the county board of education, which has charge of all the schools in the county. This is proving a wise provision, as it centralizes the administration of the county schools. It has already stopped all financial leaks, and better qualified teachers are being employed. It is a great deal more economical than the old system, as all counties are required to work under the budget system.

Professional supervision of rural schools.—The teachers of the open country, whose problems are assuredly the most perplexing in the whole field of education, have suffered for want of expert professional supervision. If many have failed to achieve success, it has been, in large measure, because they have not had that close and expert guidance commonly found in large town and city schools. The whole plan of organization has been at fault, or perhaps, more correctly, circumstances beyond public control have conspired to make conditions what they are. Rural-school supervision in many States has been limited to incidental inspection. The newness of the country, the rapid westward expansion, and other transitions in rural life explain prevailing conditions; but the schools of the new era of scientific agriculture demand more than this perfunctory inspection. System is needed. There must be organization and leadership. This is particularly true at the present time when teachers' tasks are becoming greatly multiplied. The many war duties and the after-war reorganization require of the teachers real community leadership. To give them the necessary help there must be created a staff of school supervisors, both local and State, in addition to the county and district superintendents, who must continue to devote much of their time to office practice and mere school inspection.

Some real progress is being made in many States in professional supervision. In some there are expert supervisors working under

the direction of the county and district superintendents. In others there are the so-called "helping teachers," or "supervising teachers." Many State departments of education have added to the regular staff men and women who devote all their time to directing the work of the local supervisors. This is bearing good fruit.

Washington.—This State has organized its State department of education for the purpose of extending more effective help to rural life and education. There are now in the department one expert in rural education who devotes his entire time to work with the county superintendents, one community center organizer who plans the organization of rural communities with the school and teachers' home as center. There is also a State rural life commission centered in the department of education, and a boys' and girls' club worker who cooperates with the representatives of the Federal Government for the promotion of school and home projects.

Maryland.—Provision has been made for the appointment of elementary school supervisors in such a way that each county with 100 teachers or more must have at least one specially trained school supervisor in addition to the county superintendent, the attendance officer, and the statistical clerk. The first of these supervisors in each county shall under law have charge of the rural schools.

Kentucky.—This State has recently introduced professional supervision for both white and colored schools. At the present time 32 white supervisors are engaged in 24 counties. Eighteen colored supervisors likewise are at work in as many counties, where they are maintained by the General Education Board and the Jeanes Board. The latter devote practically all their time to supervision of vocational subjects.

West Virginia.—This State, which was one of the first to subdivide its counties for supervision purposes, has as many as four supervisors in certain counties. Good progress is reported.

Vermont.—Three years ago a law was enacted making provision for State-wide supervision of schools. All superintendents are now appointed and paid by the State board of education. The average salary of these superintendents during the past year has been about \$1,800, with an allowance of \$125 for expenses.

Montana.—This State is making good progress in school administration and supervision. Speaking on this subject, State Supt. May Trumper says:

The administration of the rural schools in Montana has been greatly improved because of the fact that we now have two rural school supervisors working in very close cooperation with the county superintendents. During the past year our rural school supervisors had visited practically all counties two times. They have held many community meetings, at which times many problems dealing with administration of rural schools have been discussed with trustees, county superintendents, and teachers.

Professional supervision typified in Jefferson County, Ala.—This county may be taken as typical of the best organization to attain professional supervision of schools and teachers. The plan is summarized in the following statement:

1. Subdivision of the county into 11 districts containing about 18 schools each. In charge of each of these districts is a supervising principal who devotes his entire time to supervision. He travels among the schools, directs teachers' meetings, reading circle work, makes requisitions for his supplies, conducts sample lessons, acts as critic teacher, etc. These supervisors made 6,605 visits last year.
2. An assistant superintendent is placed in charge of the department known as "Teacher Training in Service." He has meetings with his teachers on Saturdays, selects reading matter for them, has charge of the reading circle work for the county, assists in the employment of teachers, and determining the standard for employment.
3. The professional requirements have been increased until now it is necessary for one employed to teach in this county to hold a normal-school diploma or its equivalent, or, in lieu of this, a high-school diploma with two years' successful experience elsewhere.
4. There are 12 consolidation schools, to which pupils are conveyed at public expense. There are also about 40 union schools; that is, schools made by the consolidation of two smaller schools, but without transportation. Of the 130 white schools, only 28 are one-teacher schools; of the 75 colored schools, only 35 are one-teacher schools.
5. During the year 64 night schools were conducted in rural districts for six weeks, using the teachers employed in day work, these teachers being paid at public expense; 1,230 pupils were enrolled in the high schools, 297 of these being illiterates, and 457 near-illiterates, as it was necessary for them to begin with the primer.
6. The county has two agricultural instructors under Smith-Hughes work, with a salary of \$2,400 each.
7. Four new eight-room consolidated schools have been built during the year, three of these being on the one-story extensible-unit plan. Fifteen other buildings have been remodeled or enlarged. Five acres of ground are required for each of these new buildings.

INCREASED FINANCIAL SUPPORT FOR THE RURAL SCHOOLS.

The most serious problem confronting the rural schools at this time of excessively high costs is financial. If rural children are to get opportunities for education equivalent to those afforded city children, much more money must be expended for their education than has been done in the past. Not alone is less money being expended, child for child, in rural communities than in the industrial places, but if rural children are to get this equal advantage, even more money must be expended than is now being invested on the education of city children, for the reason that education in rural communities will always be more expensive than in the larger schools in organized centers. In rural districts with the many school plants, the ratio of teachers to pupils will always continue larger than in the

cities. The upkeep, fuel, etc., cost more in the rural schools. Transportation facilities have to be provided and teachers' salaries increased if good teachers are to be obtained. In some sections rural teachers are beginning to be paid more than teachers of the grade schools, in order to keep them in the country schools at all.

There is urgent need for serious readjustment in the prevailing methods of school taxation. So long as schools are supported chiefly through local taxation it will be difficult to obtain funds required to give rural children the advantages equal to those enjoyed by city children. The country needs progressive legislation in this field. State, county, and local taxation should be resorted to. It is eminently fair that the State as a whole be taxed for the education of all of its citizens. This rate of taxation should not exceed in any case more than one-third of the entire school maintenance of the State and be distributed among the schools as an award of merit. The county may properly bear the main burden of taxation, this to be used for such general school maintenance as teachers' salary, upkeep of school property, etc., and should be apportioned on the basis of aggregate daily attendance and the number of teachers employed. Finally, the local school community should retain the right of levying taxes for extraordinary purposes, otherwise local initiative might die for want of proper stimulus.

Increased State appropriations for the schools.—Practically all of the States that make use of State taxation for school purposes have been obliged recently to increase their levies greatly, and counties and local communities have followed suit in order to maintain the schools at the present standards of efficiency. Maryland reports its State appropriation for public schools increased in 1918 from \$1,750,000 to \$2,000,000. In addition to this, bonuses ranging from \$50 to \$100 are being paid teachers who remain in their schools throughout the year. North Dakota has increased the amount of State aid for standardization and consolidation of rural schools from \$120,000 to \$225,000. Other States are doing as much or more than these.

TEACHERS' SALARIES.

Public school teaching is the poorest paid of all professions, if the time and cost of professional preparation are taken into consideration. Because of this the American teacher is transient and of short tenure. Many teachers, unfortunately, make the calling a stepping stone to other life callings. At the present time, with its unprecedented opportunities in industrial activities, a serious exodus from the profession is threatened. Indeed, many teachers, particularly rural teachers, have already abandoned teaching for other activities. (See

the chapter on Preparation of Public School Teachers, Biennial Survey of Education, 1916-1918.) Many States, in their efforts to stop the exodus, have taken steps to increase their teachers' salaries liberally, although even larger increases will be necessary to keep the best men and women in the schools. The following are some of the increases in salary lists reported to the bureau for the year 1918:

Maine.—Salaries increased about 25 per cent.

Montana.—Very few schools pay less than \$70 per month in rural communities. Most of the schools range from \$85 to \$100 per month or more for experienced teachers.

Maryland.—The legislature of 1918 increased the minimum salary for high-school teachers from \$600 to \$800 for the different kinds of certificates. White elementary-school teachers of three, five, and eight years' experience will receive salary increases based on kind of certificate and length of experience, as follows:

Salaries of elementary-school teachers.

Grade of certificate.	Beginning teachers.	Three years' experience.	Five years' experience.	Eight years' experience.
Third.....	\$400	\$425	\$450	\$475
Second.....	450	475	500	525
First.....	500	525	550	600
Principal.....	550	575	600	650

Kentucky.—A law has recently been passed placing the minimum salary for teachers of the second class at \$45, and of the first class at \$55.

Pennsylvania.—The following minimum salaries have been adopted: Provisional certificate, \$45 per month; professional and normal-school certificate, \$55 per month; permanent certificate, \$60 per month. The salaries of teachers in rural community vocational schools have risen steadily. Principals of vocational high schools receive from \$1,200 to \$1,800, teachers of agriculture from \$1,200 to \$2,000. Vocational supervisors and home-economics teachers receive \$100 per month, and other teachers of this type of rural school from \$75 to \$125 per month.

Washington.—Increases in teachers' salaries for 1918 range from 15 to 20 per cent. Teachers are generally being engaged by the year instead of for a nine months' period.

Wyoming.—Salaries of rural teachers range as a minimum from \$70 to \$90 per month and as a maximum from \$100 to \$125 per month.

Vermont.—There has been an increase the past year of about 12 per cent in the salaries of rural-school teachers. These teachers are now almost invariably employed by the year.

ORGANIZATION OF THE RURAL SCHOOLS.

Improvement of one-teacher schools where centralization is impracticable.—There are probably 212,000 schools of the one-teacher type still in use in rural communities, the only means of education open to the large majority of rural children. It is now accepted as good national policy to reorganize the small schools to meet the needs of the new era of commercial agriculture. Many of these schools can never be converted into large centralized schools for topographical and other reasons. In broken mountain districts or in sections of the country cut by streams and ragged coast lines, or in sparsely settled regions, such reorganization is seldom feasible and should not be urged. If, on the other hand, these natural obstacles do not exist, the centralization movement should be championed rationally and emphatically. The changing conditions leading to modern country life have proved utterly beyond the abilities of the small one-teacher school. Nowadays it is necessary to charge the school with a multitude of responsibilities which formerly devolved on the home. Only where there are exceptional teachers in charge of the small school can this become a truly community school. In many instances it fails in the larger purpose and remains an institution furnishing at best a meager measure of the fundamental subjects.

Reasonable standards.—For the future it would seem that a really effective one-teacher school should be standardized around such educational essentials as these:

1. A teacher with specialized preparation and willingness to make rural community teaching his permanent occupation.
2. A school plant organized on the all-year plan, equipped to provide an education fully related to rural life and its needs.
3. A course of instruction and methods of teaching in accord with the needs and nature of agricultural people.

Looking toward the all-year school.—The new standard requires, first of all, a teacher who has preferably had his professional training in one of the special schools for rural teachers, a person of rural mind and in love with rural life, who understands its difficult problems. He must be hired by the year, living at the school in a home provided by the community. The school premises should contain 5 acres or more of land, preferably more. The school building should be planned with full equipment for experimental agriculture and gardening, home economics, and manual training. There should also be ample room for community rallies. The chief departure in the new school plant is the teacher's cottage.

Some real progress has been made the last few years in the construction of homes in connection with such schools as these. The State of Washington reports 196 teachers' cottages erected and many

others underway. Many of these form a part of the one-teacher school plants, while others are erected at the consolidated schools. Wyoming reports that many cottages have been erected during the past year. Texas now counts upward of 200 cottages, and several other States are accomplishing almost as much. All-year schools of this type would hold out real inducements to strong married teachers to take charge of the schools and would make it quite possible for the teacher to conduct many outdoor activities of the school during the summer months.

A better type of school consolidation.—It is probably safe to say that the period of experimentation in school consolidation has passed. The movement has now been accepted as good national policy. The important thing at the present time is to see that school consolidation shall come in its best form. Otherwise, little will be gained by displacing the old type of education. There are about 10,500 consolidated schools in the United States in 1918. These are schools with two or more teachers, resulting from the centralization of two or more schools, providing facilities of the graded-school type. The most satisfactory type of consolidated school is planned to give the rural community just the kind of education required by an agricultural population. Broadly cultural and yet practical; preparing them for happy, wholesome, remunerative living on the land. Many of the early consolidated schools were planned as big graded schools offering courses of study in no wise adapted to the needs of rural districts. The new schools are organized with a view to preparing for the new agricultural era a permanent farming population of highest ideals. The last two years have witnessed the organization of many exceptional schools of this type. The brief statement of the Sargent Consolidated School in Colorado which follows is typical of what is being accomplished in many States:

The Sargent Consolidated School, a Colorado county life institution.—It takes time to complete such a school plant as that of the Sargent Consolidated School, and it was not until January, 1918, that the new building was occupied, being then unfinished. It was dedicated and christened April 23, at which time 50 autos were parked on the grounds and more than 500 enthusiastic country people were packed into the large school and community auditorium to witness the event to which they had looked forward with so much pleasure.

This fine modern \$35,000 school building was scarcely finished when another bond issue for \$18,000 was voted. With this an 8-room building is being erected to serve as a home for the superintendent. The contract is also let for a 10-room teacherage for the other eight teachers, and the plans are drawn and approved for a garage, 40 by 70 feet, with a gymnasium in the basement.

In this most modern and up-to-date rural school plant \$53,000 has already been expended or contracted for. These people have not only provided for the present, but have anticipated their future needs for years to come. The building itself is complete in every detail. It is a beautiful structure, well designed for all the lines of work that should be carried on in a modern rural

school. It has standard classrooms sufficient to accommodate 500 children. It has a large school and community auditorium for both school and neighborhood meetings. It has well-equipped agricultural and domestic science laboratories, and a manual-training shop, these three lines of work being introduced the first year. Thirty boys, each of whom owns a registered gilt, have organized a pig club. Already pigpens and chicken coops dot the rear of the 10-acre school site. A gasoline engine furnishes water under pressure for drinking fountains, lavatories, and toilets, and generates electricity for lighting the building, as well as for charging the storage batteries of the auto busses used in transportation. It is still further utilized as laboratory equipment in the study of electricity and auto repairs.

The first year 208 children enrolled, 30 of these being in the new high school.

At present 320 school children live in the district, and it is estimated that 300 of these will be in school next year, with 50 in the high school.

Last year 180 children were transported to and from school in five large Studebaker busses, a few riding 14 miles each way. Two more busses of the same kind have been purchased, and next year at least 240 children will be transported.

All of the nine teachers, each of whom has had either a college or normal training, are nicely and comfortably provided for in the two large new teacherages now being erected by the district. No more itinerant teachers, coming into the district Monday morning and returning to some town early Friday afternoon, for this district. They are expected to live in the district and to identify themselves with the community life therein. Moreover, each teacher will be employed because of some special preparation and fitness for work in a rural school and rural community. The superintendent is a young man with a vision, and already has earned a reputation as a community builder.

This school has also been approved for Federal aid in home economics under the Smith-Hughes Act.

The following summary by States gives some idea of the progress in a few of the States making reports for 1918:

The New England section of States centralizes its rural schools more generally by closing unnecessary small schools and conveying children at public expense to the remaining schools. This tends to remedy teacher shortage, and at the same time provides a better graded school as well. Maine reports having closed many schools during the year, conveying the children to stronger and better schools. Rhode Island reports that school consolidation has progressed as far as it can in the State without overdoing consolidation to the detriment of some of the schools. South Dakota, a State in which school consolidation is of recent origin, reports 42 new consolidated schools.

Maryland and Kentucky, like New England, depend more on closing the small unnecessary schools and conveying the children to larger schools of one and two teachers. Kentucky thus has only 79 consolidated schools, 12 of them with transportation, while it has 1,084 rural schools with two or more teachers. These are of the so called union-school type.

In New Mexico school consolidation is making rapid progress, particularly in the irrigated sections, where many large fine consolidated schools have been organized during the last biennium.

Washington has steadily increased the number of its consolidated schools, there now being 22 such institutions in the State. "It is true in this connection," says the State superintendent of education, "that good roads follow consolidation of school districts in very many instances."

In North Dakota 52 consolidated schools have opened their doors during the year and 60 new consolidations were voted. The total number of consolidated schools in actual operation are 447.

West Virginia has established 120 consolidated schools, 20 being organized during 1918.

Pennsylvania, on account of its difficult topography, has made somewhat slow progress in consolidation of schools. However, as may be seen from the following summary, compiled by the State board of education, some real progress is being made:

Number of one-room schools in the State-----	9,875
Number of two-room schools in the State-----	1,320
Number of one-room schools having an average attendance of 12 or less-----	1,715
Number of townships where complete consolidation would be feasible-----	552
Number of schools or schoolrooms closed as a result of consolidation in the last 10 years-----	715
Number of the above that were one-room schools-----	684
Number of pupils being transported to centralized consolidated or joint schools-----	6,201
Number of vans, coaches, or wagons used for transportation-----	326

The consolidated schools of Iowa are, most of them, of excellent type. The legal provision for State aid requires a large land area to be used for playgrounds and experimental purposes. This has, from the first, given the consolidated schools of the State a decided agricultural bent. Many of the schools are township-consolidated schools; i. e., they serve the educational purposes of an entire congressional township. Many of them have well-organized four-year high-school departments. The following is a summary of school consolidation in the State:

Up to June 30, 1917, 235 consolidated districts were organized.

Thirty-five thousand boys and girls have passed from the one-room school to a standard graded school.

The advantages of the standard high school have been given to 6,500 boys and girls.

About 3,700 of these high-school boys and girls are from rural districts.

The new schools furnish high-school facilities not alone for their own district but for neighboring districts which pay tuition.

Better grade teachers are secured by the payment of about \$5 per month on the average above what is paid in the one-room schools, and this at a less average cost per pupil.

About \$5,000,000 have been expended for new buildings, grounds, and equipment.

The equipment of these schools is equal to that found in the best city independent districts.

The course of study has been revised to give at least one year of industrial training in the subjects of manual training, domestic science, and agriculture, under the direction of a trained teacher.

In a number of instances special classes have been organized for the instruction of older boys and girls who have dropped out of the one-room school without completing the eighth-grade work.

This work has been carried in the form of winter courses extending from December 1 to March 15.

Two hundred and forty-five thousand dollars has been expended for State aid for consolidation. No money expended by the State has brought greater returns than this.

The State aid has not been given these districts as a gratuity but in return for the expenditure of a much larger amount on the part of local districts for school purposes. The schools have become demonstration schools for the State of Iowa and are thus encouraging other communities to reorganize their small schools.

GROWTH IN RURAL HIGH SCHOOLS.

One of the most urgent problems in rural education is to provide the people with easily accessible rural high schools. The percentage of country people educated in secondary schools of rural type is disappearingly small, in contrast with those who have similar facilities at the industrial centers. Rural people who are favorably situated with regard to town high-school facilities take advantage of the latter, although this school often tends to draw the farming class away from agricultural activities into other callings. It is well to reemphasize here that city high schools are organized for city children. Similarly, rural high schools should be organized for rural children. Some people, and farmers among them, hold the false opinion that to differentiate between city and country people in educational affairs is a discrimination against country children. This knowledge is based on the assumption that city life is superior to country life, which, to those who understand it best, is really the only normal American life there is.

The present movement is to establish rural high schools of an agricultural type in the open country or in the rural villages. The purpose is to organize the course of study to suit the needs of its agricultural environment.

Many States report good progress in establishment of rural high schools during the year. Many of these offer night-school courses for adults, including aliens, who may here obtain their first lessons in American citizenship, short courses for people beyond school age during the winter months, extension courses planned in cooperation with the State colleges, and other progressive activities for the whole community.

The ultimate solution of rural school organization in rural communities will probably be the adoption of the 6, 3, and 3 plan. That is to say, a plan to reduce the number of years in the one-teacher schools to six, which will make it possible to lengthen class recitations and accordingly help the teacher to provide more and better instruction for the several pupils than in the past. The more favored localities will plan to offer a prevocational junior high-school course of three years, in addition to the six years of elementary-school work. Many of these will be open country schools. Finally, a few centers will offer both junior and senior high-school work of an agricultural type—this chiefly in the towns.

West Virginia.—The State board of education has recently adopted a sweeping 6, 3, and 3 plan for the organization of all the schools of the State. This will mean the establishment of junior high schools in a large number of small places which have been unable to afford high-school facilities or which have sought to solve the difficulty by organizing one, two, or three year high schools of the old type, looking toward college entrance. Under the new plan it will be possible to help both those who plan to go to college and the much larger number who will go from school direct to their life work.

Vermont.—Dr. Milo B. Hillegas, State commissioner of education, says:

In Vermont the junior high school is helping in the solution of this problem. During 1916-17 there were 12 of these schools in successful operation in our State and their appeal to parents and children was sufficient to produce a steady increase in their enrollment and attendance. A considerable number of those who had previously left school returned, and virtually no students dropped out except as they moved from the town.

The chief aims of the Vermont junior high schools may be stated as follows:¹

The work of the junior high school is planned for the best interest of the pupils who do not intend or expect to go to college.

The work in the junior high school, so far as possible, recognizes material aptitudes and individual differences of ability in the pupils.

The studies in the junior high school utilize local interest and opportunities.

The work in the junior high school prepares for central or senior high school, and thus for college. It need not, however, include the work ordinarily given in the first and second years of high school.

In other words, to quote further from a recent report on Vermont junior high schools:²

The fundamental purpose underlying the establishment and maintenance of junior high schools in Vermont is the extension of the educational opportunities

¹ See *Vermont Junior High Schools*. State board of education Bul. No. 1, 1918, p. 5.

² Same, p. 8.

of each individual boy and girl in the State in the light of our professional educational aim—social efficiency. This means that the work must be planned to suit the individual needs of the pupils. It means that the school has just as much responsibility in equipping for their life work, to the greatest possible extent, those large groups of children who drop out of school early as it has in equipping the few who plan to enter college. It means the provision of nourishing, worth-while study material for the gifted pupil quite as much as the discovery of the most promising field of activity for and to the dull pupil and the development of such abilities and skills as he may possess.

VOCATIONAL EDUCATION AND THE SMITH-HUGHES ACT.

The so-called industrial subjects, including agriculture, home economics, and handwork of boys and girls, which have been making good progress in many States during recent years, have received a new stimulus with the recent passage of the Smith-Hughes Act. While aid is granted under the new law only to persons about 14 years of age, i. e., for secondary training, a marked stimulus has been given the industrial subjects in elementary schools as well, since these prepare for the more advanced and concrete work in the high schools. The new Federal aid is a powerful instrument in organizing good rural high schools in communities which could otherwise have no such facilities. At least two States (Massachusetts and Pennsylvania) have had to make little or no modification in their established vocational schools to obtain the new aid, as these States have been organized on a thoroughgoing State-wide basis for several years.

These two States might well be used as models for other States in which vocational education is not so well established or developed. Accordingly, a somewhat detailed statement of the organization and progress of this type of education in the two States is given herewith. The discussion of the Massachusetts plan has been prepared by Dr. Rufus W. Stimson, agent of the Massachusetts State Board of Education. The statement of the Pennsylvania plan is from the pen of State Supt. Nathan C. Schaeffer.

PROGRESS OF VOCATIONAL EDUCATION IN RURAL COMMUNITIES IN MASSACHUSETTS UNDER THE SMITH-HUGHES ACT.

The Massachusetts home-project plan of vocational agricultural education required no modification in order to meet the conditions of the Smith-Hughes Act. The plan has become somewhat widely known through Bulletin 579 of the United States Bureau of Education and bulletins of the Massachusetts Board of Education, as the "Home Project Plan of Teaching Agriculture." Ten years of experience with this plan have simply led to greater and greater confidence in both its pedagogic and its practical validity.

The home-project plan is a plan of earning and learning. Accurate records of productivity have been kept by pupils from the beginning. Comparative tables have been published from year to year, in which have been shown the earnings of pupils from farm and from nonfarm work. The ratio year by year has continued to be outstandingly favorable to farming. In 1917 reliable re-

turns were made by 511 boys and 7 girls, or by a total of 518 vocational agricultural pupils. Their earnings from farm work amounted to \$111,500.87, and from other work to \$8,808.16. Figures for preceding years were as follows:

Earnings of pupils.

	Boys.	Girls.	Total.	Farm work.	Other work.
Totals for 1912.....	66	4	70	\$9,754.28	\$1,345.80
Totals for 1913.....	86	3	89	15,399.90	2,582.61
Totals for 1914.....	230	5	235	37,938.67	4,124.06
Totals for 1915.....	413	5	418	51,279.83	4,974.86
Totals for 1916.....	489	8	497	75,766.53	8,406.90

If the ratios were reversed it would be a fair presumption that agriculture were not the main, but decidedly the minor, interest of the pupils. Direct "learning" gains can not be measured in dollars and cents, and are difficult of precise measurement in other terms. Those who have given but little thought to the methods of instruction used have sometimes argued that the principal aim in Massachusetts was the dollar or the earning. In Massachusetts we have frankly accepted as a challenge to our best endeavors the reasonable expectation that if our instruction in agriculture is sound, is worth while, it ought to yield a profit from year to year; but, having accepted this challenge, we have by no means neglected the other challenges of vocational education.

Pupils are admitted, on reaching their fourteenth birthdays, to the advantages of vocational agricultural education, provided they can establish a reasonable presumption that they can profit from it. Academic standards such as have determined admission to high school have not been enforced. In most cases, however, vocational pupils could have entered high schools without conditions, and the grade of mental ability and the rate of progress among agricultural pupils have compared favorably with those of other pupils of high-school age.

The vocational agricultural schools and departments in high schools are suffering, as are other schools and departments of education, from the war. Returns for 1918 will not be filed until about November 1. It is more than likely that a 30 per cent shrinkage of enrollment will be shown by those returns.

The principal forward step in Massachusetts in connection with the receipt of Smith-Hughes funds for vocational agricultural education is the establishment of a new agricultural teacher training plan. This is a sort of project plan of teaching teachers how to teach agriculture after they have been appointed for service. The instruction will be itinerant—from teacher to teacher and from school to school. One man is devoting his time exclusively to this work. No two schools are alike. Agricultural departments in high schools differ from the schools and from each other. The teacher trainer is studying the conditions under which each must do his work and is helping each teacher on the spot better and better to meet the conditions with which he is confronted.

Twenty special war-emergency departments have been approved in which State-aided agricultural instructors are supervising war gardening by adults. Last year 2,549 adults grew war-garden products to the value of \$73,180.71, of which, products to the value of \$45,083.50 were for home use and the remainder for sale or exchange. State aid for such work was approved in the cases of eight towns and cities. During 1918 the number of towns and cities receiving State aid has been increased to 20, and the products bid fair to be increased proportionately.

RURAL COMMUNITY VOCATIONAL SCHOOLS IN PENNSYLVANIA.

Twenty-three agricultural high schools, commonly known as rural community vocational schools, have been established in the rural districts of Pennsylvania. Each one of these schools is practically an agricultural continuation school, as the farmers' boys enrolled therein are continuing their education while being regularly employed on the farms. In all of these vocational schools night schools were held during the winter for farmers and their sons who were beyond school age. These courses usually extended through a period of six weeks. In one or two of the schools short courses were conducted during the winter for young men who previously dropped out of school but who wished to continue their education along agricultural lines during the winter months. The State College of Agriculture cooperated very effectively in the operation of the night schools by furnishing many speakers and teachers.

Forty-two rural communities have established vocational agricultural education for boys, and 33 rural communities have also established vocational home-making education for girls. The war has prevented the rapid development of this work by calling many of our agricultural instructors into military service. Plans are being effected for a broad development of this work immediately upon the close of the war.

Rural districts establishing and operating rural community vocational schools have invariably increased the tenure of office of their teachers by employing the principal of the school for a period of 10 or 12 months per year, and the agriculture teacher always for a 12 months' period. Many of these teachers are given a three-year contract. Salaries of teachers in these rural community vocational schools have risen quite steadily. The principal of the high school now usually receives from \$1,200 to \$1,800 per year; the teacher of agriculture \$1,200 to \$2,000 per year; the vocational supervisor of home making about \$100 per month; and assistant teachers in the academic department from \$75 to \$125 per month.

The rural community vocational school has a staff of teachers ranging from three to six in number, the number depending upon the size of the student body. About 75 per cent of these teachers are college graduates.

Plans are now being developed and will this month be submitted to the State board of education for the training of vocational teachers of agriculture and teachers of home economics in vocational schools.

The most encouraging part of our plan for rural community vocational education seems to lie in the fact that we are securing teachers who are better prepared for their work and who are being paid higher salaries with longer tenures of office.

THE RURAL SCHOOL COURSE OF STUDY.

The reorganization of the course of study for rural schools is probably the most important phase of rural education that engrosses the time of rural educators at the present time. Readjustments are gradually taking place in the materials and methods of the rural schools, but such a hold has tradition on what is taught and learned in the schools that the process of change has been exceedingly slow. In the past, progress in teaching rural school subjects from the occupational point of view has been hindered greatly by inflexible established State courses of study, which are usually planned alike for all elementary schools, whether in town or in country.

Fortunately, many States are beginning to plan distinctive courses for the rural schools. Louisiana has attained marked success in its rural schools under a very progressive course of study planned several years ago. Montana has recently published a course of study covering all the fundamental subjects and vocational subjects usually taught in the rural schools. Other States are planning similar courses for their rural schools.

Meanwhile, several committees have been organized, or are being organized, for the purpose of making a fundamental study of the entire field of rural education.¹ In the same connection should be mentioned the innovation recently made for the study of rural education by the rural education department of Teachers College, Columbia University. This embraces a cooperative plan of education between Teachers College and two New Jersey counties, the schools of which will be used as practice schools and study laboratories for the development of the best teaching practice and study course for rural schools.

STATUS OF TEACHERS FOR THE RURAL SCHOOLS.

Effect of the war on teacher supply.—A study made by the rural school division of the bureau indicates clearly the serious proportions reached in the dwindling of the supply of rural teachers. Partial returns have been completed from 1,150 out of 2,964 counties in the 48 States. According to the figures returned, these 1,150 counties report a shortage of 10,456 rural teachers and 2,004 other teachers. Only one State, California, reports no teacher shortage, either rural or urban. On the basis of the counties compiled to date, there is probably a shortage of about 27,000 rural teachers and at least 5,000 other teachers. The bureau estimate for past years places the annual number of new rural teachers at 87,500. The proportion of beginning teachers for the year 1918-19 is abnormally large. In some counties the superintendents report as high as 85 per cent of teachers without previous experience. The median for experienced teachers for the country at large is 19 per cent. On the basis of figures returned, at least 125,000 inexperienced teachers will be employed in rural communities. In addition to this, the rural schools are losing most of the small number of men teachers. The 1,150 counties reporting have lost 1,955 men. Indeed, 41 per cent of all men who taught in rural schools one year ago seem to have left the profession. The reports from Connecticut indicate that the few men who have taught in the rural schools will all be replaced with women teachers for the current school year.

¹ Notably may be mentioned the Bureau of Education committee on rural school course of study, and the educational committee of the recently organized National Rural Life Commission.

Even before the war the most difficult phase of the whole educational problem was how to get and retain in the profession an ample staff of well-prepared rural teachers. Since the country's entrance into the war the problem has become greatly intensified. Now is the time therefore to drive home to the people what is necessary before better things can be attained in the field of professional rural teaching. The public will have to become fully aware of their responsibility toward the teachers; they will have to make the schools and housing conditions more attractive than they now are, and in other ways make feasible long, well-paid tenures in the same community. The Government must, by legal enactment, safeguard the profession and offer special inducements to all teachers to equip themselves well for their profession as a life work. With this as a basis, the teachers will be more ready than now to strive to attain genuine professional standards of teaching.

Teaching rewards.—Teaching rewards should bear a definite relation to the experience and time incurred in securing the teaching certificate. Salaries ought, accordingly, to be based on the kind of certificate held. There should in every State be a legal minimum salary for each type of certificate. Similarly a second year in the same school community ought to be awarded with a State grant of a definite sum, say \$5 per month; a third year with double the above sum; and the fourth and each subsequent year with treble the first sum. These bonuses should always be in addition to the salaries paid by the local community.

As has been pointed out elsewhere in this chapter, several States have already adopted the plan of scaling salaries on the length of experience and the kind of teaching credentials held by the teachers. Wisconsin, Indiana, and Maryland are among the States basing their salary scales on the degree and kind of professional preparation and tenure in the same community.

Paradoxical as it may seem at first thought, the remedy for an ample supply of well-prepared teachers should be sought in gradually increased professional requirements of all rural teachers. While during the war period it was impracticable to legislate against admission to the teaching ranks by the ordinary examination route, the present is the right time to look forward to ending this practice as soon as possible. The teacher in the effective rural community school of the future may be expected to come into the profession from the professional teacher-training schools only. This, together with increased salaries and improved living conditions, will help to dignify the profession and place it on the higher level which should always have held, but which in recent years seems to have been largely lost to the American teacher.

Professional requirements.—Many States are steadily increasing the professional requirements of all teachers. The normal requirement recently laid down by the Bureau of Education in its State surveys is being adopted in several sections in the country. (See the chapters on Preparation of Public-School Teachers, Biennial Survey of Education, 1916-1918.) This standard requires that all public-school teachers must, as a minimum, have completed a four-year high-school course and have had, in addition thereto, at least one year of professional training. This includes rural schools teachers as well as other teachers.

In order to reach these standards by a time fixed by law, several States, through their normal schools and other teacher-training institutions, have established interesting and profitable extension services over the State, for the teachers who are unable to attend the normal school regularly. The first State to enact a movement of this kind was probably Iowa, which, through the State Teachers' College at Cedar Falls, has organized a State-wide service of this kind. The Bureau of Education, in its surveys of education in North Dakota, Washington, and Arizona, has recommended similar extension services for these States, which are just getting underway.

Schools preparing rural teachers.—During the school year ending 1915 the 273 public and private normal schools enrolled 100,325 students and graduated a total of 21,944. It is quite certain that most of these teachers found positions in towns and cities, as did most of those who graduated from the schools of education in universities and colleges. The agricultural colleges have also done something for the preparation of secondary-school teachers in agriculture and teachers for some of the strongest consolidated schools.

The largest immediate supply of rural teachers comes from the training departments of the high schools in many States. Next in point of numbers stand the normal schools; then, in the order mentioned, the schools of education in colleges and universities and the agricultural colleges. A study¹ recently made by the Bureau of Education on rural-teacher preparation in county training schools and high schools discloses that 21 States in 1915-16 were preparing teachers for rural communities in 1,493 county normal schools and high-school training departments and classes, which enrolled a total of 27,111 students. From these schools 16,626 teachers were graduated in 1917. Since that time Montana has organized similar classes in 11 schools, with an aggregate attendance of 200 students.

The real hope of the country for an ample supply of well-trained rural teachers still rests with the public normal schools. A few years ago these institutions were devoting most of their energies to train-

¹ Bulletin, 1917, No. 31.

ing city and town teachers. During the past few years there has been a marked change in the disposition of the normal schools in this regard. Many of them, established in agricultural sections of the country, have reorganized their work to meet the demands for the new type of rural teachers. In many schools this reorganization has come as well organized, distinctive rural-school departments in charge of a director and assistants. In other schools the work has not gone quite so far and is being offered as special courses for rural teachers, given chiefly during the summer sessions. Experience with the two types of organization demonstrates quite clearly that the only worth-while organization is the special rural teacher-training department. Up to the present time 122 rural-school departments have been established in the normal schools. Many of the departments are in charge of a director, who usually teaches rural sociology and economics, and one or two other instructors, one of whom is a rural critic teacher. Altogether 84 of these departments make use of rural practice schools, either erected on the campus or located in near-by country districts; 97 other normal schools offer specific courses for training rural teachers, some limiting the courses to the summer sessions. The above enumeration shows an increase of almost 100 per cent in these facilities over what the schools offered in 1915, but even with such progress there is much still to be done, as many of the schools do not realize the far-reaching importance of the work of these specialized departments and do not support them as liberally as should be done to make the work in every respect satisfactory.

NATIONAL RURAL TEACHERS' READING CIRCLE.

The National Rural Teachers' Reading Circle was organized by the Bureau of Education in 1915 in cooperation with an advisory committee of the State superintendents of public instruction. The purpose is to be of direct assistance to the thousands of progressive serious-minded rural teachers of the country who desire guidance in their study to improve themselves professionally. Never in the history of our country was there so great a demand for well-prepared rural teachers and supervisors as at the present time. It is to assist in finding and equipping these educators that the Bureau of Education organized the reading circle work three years ago.

The American farmers are doing their great share in winning the war through increased production from the land. After the war is won the rural population must take an equally vital part in the economic reconstruction that is sure to follow. This calls for a new type of leadership, cultured and educated in practical phases of modern scientific agriculture. The most important and indispensable agent in the attainment of this task will be the rural teacher. Without the

well-educated, broad-minded, sympathetic teacher any system of education can only be a lifeless mechanism.

Therefore, the public must look to the country teachers and their preparation and see to it that they shall be men and women of the best native ability, the most thorough education, and the highest degree of professional knowledge and skill. Since the time of organization a large number of progressive rural teachers of the country have become members of the reading circle. No attempt has been made to draw to the circle large numbers; the aim has been rather to list a few leaders from each county in the several States. Results have been very satisfactory. Of the number matriculated a large percentage have completed the work and have received the commissioner's certificate.

The reading circle is without cost to the members aside from procuring the necessary books, which may be furnished from the publishers at regular retail rates or they may be secured through local libraries, or in other ways. There is no restriction as to membership, although it is highly desirable that applicants have a liberal acquaintance with the best literary works, past and present.

The books for this period reflect largely the new conditions in education due to the unprecedented changes going on in the world to-day. They are classified under six heads as nonprofessional books of cultural value, civic and patriotic readings, educational classics, general principles and methods of education, rural education, and rural-life problems.

The work is intended as a two-year reading course, although it may be completed by the industrious teacher in a shorter time. To those who give satisfactory evidence of having read intelligently not less than four books from the general-culture list and three books from each of the other five lists—19 books in all—within the two years of the time of registering will be awarded a National Rural Teachers' Reading Circle Certificate signed by the United States Commissioner of Education.

COMMISSIONS AND COMMITTEES ORGANIZED FOR THE ADVANCEMENT OF RURAL EDUCATION AND LIFE.

Several commissions have been organized during the year for the advancement of rural education and life. The most important of these organizations are here noticed.

The National Country Life Commission.—The first steps toward organization were taken by a number of educators interested in following up the work done by the original commission on country life appointed by President Roosevelt in 1908. A permanent organization was formed at Pittsburgh, June 29, 1918.

The general program and objectives of the commission have since that time been definitely settled and committees have been appointed. These include the following committees: I. Means of communication. II. Home making. III. Means of education. IV. Rural government. V. Health and sanitation. VI. Recreation. VII. Country planning. VIII. Morals and religion. IX. Country life objectives and values.

These committees are most of them divided into subcommittees. The committee on means of education is subdivided as follows: (a) Rural, elementary and secondary schools; (b) Agricultural education; (c) Adult education.

The central purpose of the commission is to make a study of the important problems in rural life, what principles govern their solution, and what steps should be taken now toward meeting them. Plans are underway to prepare a statement of the whole rural problem, including references to easily available literature on this subject for the use of school officials, elementary schools, high schools, granges, farmers' unions, rural women's clubs, farm bureaus, and other country organizations. Dr. Kenyon L. Butterfield, president of the Massachusetts Agricultural College, Amherst, is general chairman of the commission, and Dwight Sanderson, United States Department of Agriculture, secretary.

Committee on study of consolidation and rural high schools in the United States and Canada.—This committee was organized by the section of State supervisors of the National Education Association, at its Kansas City meeting. The work has gradually been expanded from a rather small effort to a most thoroughgoing study of school consolidation and rural high-school organization in all the American States and the nine Canadian Provinces. The central committee consists of H. W. Foght, chairman; S. B. McCready, Toronto, Canada; Lee Driver, Winchester, Ind.; Miss Charl Williams, Memphis, Tenn.; J. M. Foote, Baton Rouge, La., and C. G. Sargent, Fort Collins, Colo. This committee is working in cooperation with a larger committee of 57 educators, representing the several State departments of education and Canadian provincial ministries of education.

The work of this committee is now well underway. It is the committee's purpose to report at the Chicago meeting of the Department of Superintendence in February, 1919. The scope of the work will include statistical data from all the States and Provinces, together with intensive studies of 19 counties and a large number of individual schools. The results of the study will be published as a bulletin by the Bureau of Education.

The Bureau of Education committee on rural school course of study.—The Bureau of Education has worked on the reorganization of the rural school course of study for several years. The bureau spe-

cialists are working in cooperation with an outside committee of educators selected from the several sections of the country at large.

This committee has undertaken a searching study of rural education. The plan underway is first to organize the content of the course of study, based on cultural and occupational needs. This subject matter is then to be tested and worked out in practice schools at several places over the country.

The committee on rural education appointed by the National Education Association at its regular summer session.—The committee comprises representative educators headed by State Supt. J. Y. Joyner, of North Carolina. The purpose of this committee is to make a searching study of rural education in all its several phases.

RURAL-SCHOOL SURVEYS.

Several important school surveys have been completed within the last biennium which have emphasized various phases of rural education. Among them may be mentioned the following State-wide studies made under the direction of the Bureau of Education:

A survey of the educational institutions of the State of Washington.

Educational survey of Wyoming.

Educational conditions in Arizona.

Educational survey of Tennessee.

Educational survey of the schools of South Dakota.

While all these surveys give space to the rural schools, the subject is notably emphasized in the studies of Wyoming, Arizona, South Dakota, and Tennessee. Some instructive age-grade statistics, included in the surveys, show graphically that the present system of school education in country districts is much less effective than the schools in the incorporated places, the number of overage pupils being fully 25 per cent greater in the rural communities than in the towns and cities.

Self-surveys of rural schools have been promoted in a number of States, notably in Minnesota, Wisconsin, Missouri, and Montana. The tabulations and conclusions of these surveys may be procured by addressing the several State departments concerned.

PUBLICATIONS ON RURAL EDUCATION OF THE BUREAU OF EDUCATION.

A number of publications on rural and agricultural education have been compiled and distributed by the Bureau of Education during the past year. These publications include occasional bulletins and rural-school letters and circulars published by the bureau and pamphlets and brochures published by other governmental and private

RURAL EDUCATION.

organizations but distributed by the bureau. Much of this deals with timely topics of the war emergency. Bulletins on rural and agricultural education published since report on rural education are as follows:

- Bulletin, 1916, No. 26, A Survey of Educational Institutions of the Washington.**
- Bulletin, 1916, No. 29, Educational Survey of Wyoming.**
- Bulletin, 1916, No. 41, Agricultural and Rural Extension Schools in**
- Bulletin, 1916, No. 44, The District Agricultural Schools of Georgia.**
- Bulletin, 1916, No. 48, Rural-School Supervision.**
- Bulletin, 1917, No. 5, Report of Inquiry into the Administration and the Colorado School System.**
- Bulletin, 1917, No. 31, Rural-Teacher Preparation in County Training and High Schools.**
- Bulletin, 1917, No. 33, A Comparison of the Salaries of Rural and Urban Intendents of Schools.**
- Bulletin, 1917, No. 35, The Township and Community High-School Movement Illinois.**
- Bulletin, 1917, No. 44, Educational Conditions in Arizona.**
- Bulletin, 1918, No. 3, Agricultural Instruction in the High Schools Eastern States.**
- Bulletin, 1918, No. 27, Rural-Teacher Preparation in Normal Schools.**
- Bulletin, 1918, No. 31, Educational System of South Dakota.**

CHAPTER VII.

SECONDARY EDUCATION.

By THOMAS H. BRIGGS,
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CONTENTS.—Character of school reports—Growth of high schools—The small high school—Consolidation and coordination—Larger use of the school plant—The high schools and the colleges—Failures and marks—Retardation, attendance, and elimination—High-school pupils—High schools for negroes—Secondary school teachers and principals—The tenure of teachers and principals—The training of teachers and principals—Supervision of instruction—Extension of function of high schools—The war and secondary schools—Farm service by high-school pupils—Military training in high schools—The future of the high school.

CHARACTER OF SCHOOL REPORTS.

A study of a large number of school reports, from both States and cities, reveals an astonishing variety in the size, the audience addressed, the content, and the use made of them. The size varies from pamphlets of a few pages to volumes of several hundred. In a number of instances a long report is published in several small sections, thus effecting economy and also insuring attention that might be repelled by a formidable volume. The audience is the board of education, the teachers, superintendents of other States or cities, the public at large, or nobody in particular. It would seem that in every case the persons to whom the report is addressed would be known, first of all, for their interests or needs should determine the contents of the report. It is difficult to see why any school reports should contain portraits of the members of the board of education, programs of the high-school graduating exercises, expressions of acrimony between school officers, unsubstantiated statements of "a most successful year," lengthy minutes that properly are recorded in the secretary's book, or complete unclassified details of expenditures. It is doubtful if most of the tediously gathered statistics can be justified when they occupy three-fourths of a report and are accompanied by no interpreting text and no indications that they have been or will be used.

When a report is definitely addressed to the public, it very properly contains general statements of progress, explanations of new features in the schools—such as supervised study and the longer school day or of extra-curricular activities—and arguments concerning the value of secondary or higher education. Supt. Stark, of Hackensack, N. J., in addressing the public, prefaces his detailed

report by a summary of his recommendations of the preceding year, a list of the accomplishments during the year, and recommendations of what should be done in the future. A report addressed to the public may properly also present data concerning the high-school teachers—their preparation, experience, etc.—facts showing the holding power of the school, the percentage of failures, the size of classes, the cost of each subject per pupil, and the like, provided the tabulations are interpreted and an appeal is made that a proposed program of improvement be supported. It is certainly not economical to include in one volume for general circulation different kinds of material, each being of interest to only one of several audiences addressed. Of the State publications concerning high schools, it is not invidious to mention as peculiarly helpful for various reasons those from California, Illinois, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, South Carolina, and Wisconsin.

GROWTH OF HIGH SCHOOLS.

The State reports for the biennium contain less about the increase in the number of high schools than they have done for a number of years past. Especially in the older States and in the younger ones that have done most by way of educational advance there are justifiable expressions of pride that opportunities for secondary education are in the reach of the greatest majority of youth. The growth that is more emphasized is in the number of pupils and in their persistence in school. There are a number of expressions of opinion that no high schools should be established or maintained at the expense of the elementary grades and that in the secondary schools already established effort should be made to secure respectable work of higher quality. Typical of these expressions may be quoted the following passage from the fourteenth biennial report of the State superintendent of public instruction of Montana:

While everything possible has been done and is being done to encourage high-school work in all schools equipped to do the work, and while the principals of the larger high schools have been most generous in their willingness to cooperate with these schools that are taking care of the boys and girls at home, it seems that a note of warning must be sounded or some districts in their zeal for high-school work will do their schools more harm than good.

In the first place, many schools have asked teachers not well qualified to teach the ninth grade subjects, which is an unwise thing, for no instruction is often better than the wrong kind of instruction. Other schools hiring but one or two teachers have endeavored to start high-school classes. The best that can be said of the work carried on under these conditions is that it overworks the teachers, robs the boys and girls in the elementary grades at the very time when they are forming their like or dislike for the public school, and cheats those who think they are getting high-school work when they are not, and who believe that they are saving time when they are actually losing it. Still other schools with the number of teachers necessary to start high-school work fall short by trying to care for too many courses or too many

studies in one course, forgetting that thorough work in a few branches is better than slipshod efforts in many.

In planning for the best interests of the school, it must be remembered that a first-class elementary school means a good deal more to any community than a poor high school, and no attempt should be made to finance high-school work until grounds, buildings, and equipment are what they ought to be, and something in the way of music, drawing, industrial work, domestic science, and community activities have been provided for the grades.

The valuation of the school district should also be considered, and until this is what it should be, the thought of the first-class graded school with suitable equipment and a permanent and fully accredited high-school course can not be fully considered, for in the long run, carrying on a school of that kind is not a question of enthusiasm, of sentiment, or of need, but one of dollars and cents with which equipment can be provided and teachers paid.

When the proper valuation is in sight, whether it has been secured by consolidation or otherwise, the first year of the course best adapted to the needs of the community in which the school is located should be taken up and strictly adhered to until sufficient teaching force can be employed to carry on additional work.

The State inspector of high schools for South Carolina is even more emphatic and pointed in his remarks:

One of the first weaknesses a stranger would detect in the high-school system in South Carolina would be our small number of four-year schools in places amply able to support them, and the attempt of a few small places to support four-year schools with too few pupils and too little money. The number of the latter class is small, but of the former class there are too many. To maintain a four-year school there are three things necessary: Enough pupils to justify its existence, enough money to employ the teachers and to equip the school, and a community that appreciates such a school.

From the point of view of attendance it seems reasonable to hold that any three-year school with as many as 75 pupils is well able to maintain a fourth-year class. Seventeen of our schools last year had enrolled 1,816 high-school pupils going out with a three-year high-school education. Admittedly, those going to college are not prepared as they should be, and certainly those leaving school are entering life with meager equipment.

From the point of view of expense a few words ought to suffice. In September, 1916, these 17 schools sent from their third-year classes 194 pupils to college, one year behind the preparation required by high-grade colleges. In other words, these pupils went to college to get their fourth-year high-school training. At the conservative estimate of \$250 each, these pupils cost their parents \$48,000 for the privilege of sending their children away from home to get what they should have had at home. Worse still, it cost more to keep these 194 pupils at college a year than the 17 schools paid for teaching the entire high-school enrollment of 1,816. All this takes no account of the large number of boys and girls whose education closed with the third year of the high school. Why will people persist in such waste and folly? Once we heard that ancient alluring phrase about "saving a year at college," but surely thinking people are no longer caught with such bait.

The people of this State have had so little practical experience with well-equipped four-year high schools that they do not appreciate their value. For long years we have known nothing higher than a three-year high school resting upon a seven-year elementary school, and the people have come to look upon such a school as ideal. In fact, one occasionally hears the argument that such a school is enough for any people. Such advice reminds one of Æsop's unfortunate tailless fox. If the study of pedagogy has taught us anything, it has convinced us that we can not force the

growth of the human plant. It requires time for the human plant to grow and mature. When we consider the comparatively small number of men and women with a college education, and the even smaller number with a four-year high-school education, we begin to understand the limitations of our people intellectually, industrially, and economically. South Carolina's having more college graduates than four-year high-school graduates furnishes amusement for everybody but us. We have not yet seen the amusing side of the situation.

In another part of his report Inspector Hand explains how the unfortunate condition came to exist in South Carolina, and recounts the changes in the law made in an attempt to remedy earlier mistakes. In 1907 South Carolina passed a law appropriating \$50,000 to develop high schools.

Although the terms upon which State aid was offered to the individual schools were liberal, of the \$50,000 appropriated for the scholastic year 1907-8, only \$27,960 was used. Only 56 schools could be induced to take advantage of the new law. In the law was a clause granting to the trustees of a high school accepting State aid the power to levy a local high-school tax not to exceed 2 mills on all the taxable property of the district. In most instances local boards had to promise not to levy this tax before the people would vote for the establishment of a high school. It is interesting to note how many districts then reluctant to empower their trustees to levy a 2-mill tax have since voted 4, 6, 8, and even 10 mills for school support. In 1908-9 only \$44,295 of the State appropriation was used.

Apprehensive lest the towns and the cities might get an undue proportion, if any part, of the State appropriation, the general assembly put into the first law an unfortunate clause forbidding the use of any of the appropriation in a school district containing an incorporated place of over 1,000 population. Small places with few pupils and small revenue were the only places encouraged by the law. The consequences might have been foreseen. These small places were prompted to undertake the impossible, to establish high schools without resources to maintain them. In order to put 2 teachers and 25 pupils, the minimum requirements, into the high schools, numbers of places crippled their elementary departments for years. To remedy this defect the law was amended so as to permit a high school of 1 teacher and 15 pupils to share in the State appropriation. Again the consequences ought to have been foreseen. Every school of 3 teachers that could possibly find 15 pupils for the high-school grades wished to become a high school. Not infrequently a high-school teacher would be found with 15 pupils, often fewer, while the 2 teachers in the lower grades would have from 30 to 50 pupils each, occasionally more.

Between 1907 and 1917 fifty-eight places undertook to maintain high schools, but gave them up.

At the beginning of the year 1916-17 all the one-teacher high schools were put into the rural graded school class, and the appropriation for that class of schools was increased. So far as making any contribution to a permanent system of high schools, the State's money spent on these one-teacher schools was a total loss. It was an expensive experiment financially, and one that had a deadening effect 'or worse than the mere financial waste. The one-teacher high schools put an immediate check upon all efforts at building up high-grade high schools at central points to serve small surrounding schools. The one-teacher high schools undertook the work of three and four teacher high schools, and parents seemed satisfied with the attempt.

Meantime the general assembly had, after a hard struggle, amended the law by increasing the maximum population limit from 1,000 to 2,500. With the census of 1910 twenty-five of the largest high schools in the State were debarred from any participation in the State high-school fund, although any high school receiving any of this

fund had to give free tuition to any high-school pupil from that county. Year after year the lawmakers were urged to repeal this clause, but without success until 1916, when an entirely new law was substituted. The new law is much simpler than the old one. The population limit is entirely removed, a high school must have at least 2 teachers and 25 high-school pupils, the district must levy at least 4 mills local school tax for running expenses, any high-school pupil can without tuition attend any State-aided high school in his own county or an adjoining county, and the State appropriation was increased to \$80,000 annually. The immediate effects of the enactment of the new law will be referred to in another place in this report.

State Inspector Walker, of North Carolina, recognizing the weakness in his State of the small, weak high schools, proposes a policy that should control them:

There is needed a comprehensive policy, a plan backed by law, that will recognize in some way all worthy high schools operated at public expense, city and rural, and that will make possible the development of good high schools where high schools are needed and prevent the multiplication of weak high schools where high schools are not needed. It is impossible to build up an efficient high school in every cross-roads community. It becomes necessary to concentrate our efforts in each county at a few centers where there is a quickened school interest, intelligence, and available means, all of which are necessary to the development of schools of the right kind. It might be advisable to extend State aid to all well-organized and well-managed four-year high schools of the cities and towns that admit pupils to the high-school grades from the country districts, State aid, of course, to be given under the requirements of the public high-school law and primarily on the basis of attendance from outside the local district. This matter, I think, is worthy of serious consideration.

The State appropriation should, in a word, be used for four important purposes: (1) To stimulate counties and communities to initiate new and necessary lines of work which they would not be likely to undertake of their own accord, as, for example, putting in courses in home economics, agriculture, and teacher training; (2) to encourage counties and communities to inaugurate new and necessary policies, which they would not be likely to put into practice if left without direction, as, for instance, putting the high-school principals on salary the year round; (3) to encourage schools to maintain higher standards of excellence, as, for example, lengthening the school term, organizing the work on a sounder basis, employing better teachers, paying better salaries, etc.; (4) to equalize in some measure opportunities for high school training by helping to support good high schools where they are needed in counties and communities that have not the funds necessary to maintain good high schools.

THE SMALL HIGH SCHOOL.

It is a matter of judgment that many small high schools are generally doing poor work, but State Inspector Williams, of Indiana, has measured the product of the small and of the large high schools by their records in college.¹ Indiana has 94 public high schools for every 100,000 persons of school age, approximately two and a quarter times as many as New York, its nearest rival. "Of the 850 officially recognized high schools in Indiana, 51 per cent have fewer than four teachers and 71 per cent have fewer than five teachers." Thirty students from these small high schools and 85 from large high

¹ Educator-Journal, 18: 233-238.

schools had the following distribution of marks in the freshman year at Indiana University:

Percentage of marks.

	Small high schools.	Large high schools.
A.....	1.65	12.06
B.....	11.41	31.23
C.....	33.01	31.32
D.....	23.93	13.09
Conditioned.....	14.58	8.68
Failure.....	15.26	2.69

Inspector Williams found similar results in seven other Indiana colleges. Principal Smith, in his survey of Illinois high schools, however, found no such difference between the graduates of small and large schools. Whether the slight inferiority of the small high school in Illinois is due to the fact that in this classification are all schools enrolling up to 100 pupils or to other causes is not known.

Of course the academic success of those pupils who become college students is not the only criterion of the value of a high school. A multiplicity of small high schools certainly increases the number of pupils who enter upon secondary education; disregarding tradition, they may be adapted so as to satisfy peculiar local needs, and they may be made junior high schools and affiliate with a central school which will complement their work, or each one may form a nucleus which later may develop into something larger and more satisfactory. Mr. Williams, in his study, shows that in sections of Indiana abundantly supplied with high schools, small and large, the ratio of secondary school enrollment to the entire school enumeration is from two to four times as large as when the number of high schools is small.

The alternatives proposed for improvement are (1) a reduction and adaptation of the offerings by small high schools and (2) consolidation. The commissioner of secondary schools for California writes:

In planning the course of study for small high schools it is not necessary to include all the subjects or courses taught in larger high schools. The law requires that the high school offer one course of study that will prepare graduates therein for admission to the State university. It does not require that the high school offer courses that will prepare graduates therein for admission to all of the colleges of the State university.

The State inspector of North Dakota writes similarly:

Most high-school programs are too full. Too much is attempted, especially in the smaller high schools. Such a plan makes the limited teaching force attempt too much, and results in a lowered quality of work. In most small schools the superintendent or principal has to do so much class room work that he has neither time nor ambition to give the kindly, thoughtful counsel and assistance to the teachers both of

the grades and the high school which is so essential to good, satisfactory work. Many times the remedy is in the hands of the teachers themselves. Small classes could often be eliminated and some subjects alternated with profit to all.

In Vermont Commissioner Hillegas and in New Hampshire State Superintendent Morrison have consistently and cogently worked to make the small high schools contribute first of all to the assured needs of the pupils who are likely to have no further education. It should be remarked that in both States emphasis is laid on cultural as well as on the more immediately practical training.

CONSOLIDATION AND COORDINATION.

Consolidation in some cases, as in Vermont and Tennessee, carries with it a system of abbreviated or junior high schools, and in others, as notably in Illinois, an enlargement of territory to support a cosmopolitan high school. The program proposed by the Vermont survey has been improved and developed there, and the State superintendent of Tennessee writes:

Until the last legislature we did not have a compulsory high-school tax. We now have a 5 cent high-school tax levied by the State in every county. Until this last year we had, where they had a high school tax, one centralized high school with disorganized inefficient secondary schools which you no doubt well remember. These schools never had a course of study or any regulations. As a result they began nowhere and lead nowhere.

The last legislature passed a law providing for a centralized four-year high school with as many two-year high schools established over the county as may be necessary to bring the first two-years of the high-school work within reasonable reach of all parts of the county. The course of study in these schools is the same as the first two years in the centralized first-class school. This gives us a splendid high-school system.

The State inspector of high schools for South Carolina, in reviewing the conditions in each district in his State, repeatedly makes such recommendations as the following:

A—— and B—— ought to put aside their petty local pride and unite in establishing a high school that might be the righteous pride of both places. Both districts would save money, and have such a school as neither alone can ever hope to have.

In C—— the school has struggled hard under difficulties. An 8-mill tax for expenses brings in too little money from rural property returned at low valuation. Salaries are low, and the school is housed in a very inferior building. The school would be better off as a rural graded school.

Inspector Williams concludes the study previously quoted with the following paragraphs of recommendation:

The writer proposes, as the highest type of aid by the State, either that in operation in California, where provision is made for separate and special taxation for the support of high schools, or that in effect in New Jersey, where the general school tax is drawn upon for a special apportionment to high schools. In the one case, the annual high school levy is determined by multiplying the number of pupils in average daily attendance by \$15—a State-wide tax of approximately 1½ mills. In the other, the special apportionment is made to high schools on the basis of \$400 for every teacher employed

and of a fixed sum per pupil per day of actual attendance. Some such system in Indiana would prove a powerful stimulus to the maintenance of standard conditions and equalize the high-school facilities in every part of the State.

Fortunately, Indiana school law has made notable progress in the direction indicated. Legal provision exists for union or consolidation of the following varieties:

(1) Joint high schools. On the petition of a definite number of legal voters of two or more school corporations, an election must be called to determine the desirability of maintaining a joint high school. If favorable, the two corporations may unite in one of the following combinations:

(a) Joint town (or city) and township high school. In this case, cost of maintenance is apportioned in proportion to the taxables of each corporation, and the school is managed by a joint board.

(b) High-school district. A city (of any class) or incorporated town may establish and maintain jointly with one or more contiguous townships (or portions thereof) a high school district. Maintenance and management as before. Provision is made for voluntary withdrawal at any time from the arrangement by any member of the district.

(c) Joint township high school. Two adjoining townships, having a combined taxable valuation of three quarters of a million dollars (\$750,000), may establish and support a joint high school, provided no high school already exists in either corporation and eight or more pupils have graduated from the common schools in each of two previous years.

(2) Consolidated high schools. Under similar conditions, a town or fifth class city and the adjacent township may consolidate two or more existing high schools. Two plans of management are provided:

(a) A new board consisting of the township trustee and two persons chosen by town or city council—one of these a resident of the city or town and the other of the township outside.

(b) A joint board composed of the township trustee and secretary of the school board, with appeal to the county superintendent.

Thus ample legal sanction exists for communities to combine resources and unite for high grade working conditions.

As is well known, Illinois has gone further in the establishing of consolidated high schools than any other State. The story of the development of its township high schools, a type that might well be adopted in other sections of the country, is told by University Visitor Hollister in Bulletin 25, 1917, of the United States Bureau of Education, and many interesting data are presented in Principal Smith's Survey of Illinois High Schools. The law permitting the organization of a high school in contiguous territory regardless of political boundaries, under which nearly 200 new schools were established, was in 1917 declared unconstitutional; but the next legislature promptly passed a better act. Of the present situation State Supt. Blair writes:

All of the territory of a county not included in a recognized high-school district is considered nonhigh-school territory. A board is elected within this nonhigh-school territory and levies a tax to pay the tuition of all eighth-grade graduates residing within the nonhigh-school territory. An unusual and most effective plan is provided for taking care of the two and three year high schools. In many of our mining villages and smaller communities the people desiring to keep their children at home during the first years of the high-school course sought to maintain a high school and an elementary school on the one tax of $1\frac{1}{2}$ per cent on the assessed valua-

tion of the property. In almost every instance it was found that to maintain such a high school meant the shortening of the elementary school, the lowering of the wages paid the teachers and the consequent reduction of elementary-school opportunities. Now, this new law places all recognized two and three year high schools within the nonhigh-school territory. All of the funds within these local two and three year high-school districts is to be used for the elementary schools and they are taxed with the rest of the district for the payment of the tuition of all the eighth-grade graduates within the nonhigh-school district. All the children attending these two and three year high schools have their tuition paid out of this fund. If a two-year high-school district has 20 pupils enrolled, it receives 20 times the per capita cost of maintaining the high-school courses. If a three-year high school has 35 pupils, it receives 35 times the per capita cost of maintaining the high-school courses, all paid out of the nonhigh-school tuition fund. You will note that the provisions for forming community high-school districts is much better safeguarded than under the law of 1911, which was declared unconstitutional by the supreme court.

In Kentucky adjacent counties have been given the privilege by the legislature of combining for the establishing and maintaining a joint high school covering a territory larger than the single county as an educational unit. The congressional district high schools of Georgia are well known. And in North Carolina there are the farm-life schools. Of these State Supt. Joyner says in his recent report:

Since the amendment to the farm-life school law, allowing any county that will provide the required equipment and an annual maintenance fund equal to the amount received from the State to avail itself of the State appropriation not to exceed a maximum of \$2,500 for instruction in agriculture, sewing, cooking, household economics and other farm-life subjects in connection with one or more of its rural high schools, 9 new farm-life schools have been established during the biennial period, making a total of 21 such schools in 17 counties of the State. No part of the annual maintenance fund for these schools or of the funds for their necessary equipment is allowed to be taken out of the regular school funds and to shorten the regular public-school term until those funds are sufficient to provide a minimum of six months. The significant and hopeful fact about their establishment through the cooperation and sacrifice of the people of the communities in which they are located is the evidence that it furnishes of intense interest in the education of country boys and girls for country life, and of the faith of the country people in a sort of education and school that can and will provide better preparation for more profitable, more comfortable, more healthful, more joyous, and more contented living in the country.

The progress of centralized schools in North Carolina and the program for the future is set forth as follows:

Under the law and the rules adopted by the State board of education not more than four of these schools can be established in any one county. No public high school can be established except in connection with a public school having at least two other teachers in the elementary and intermediate grades, and the entire time of at least one teacher must be devoted to the high-school grades. No public high school can be established in a town of more than 1,200 inhabitants.

Each district in which a public high school is established is required to duplicate by special taxation or subscription the amount apportioned to the school from the State appropriation; each county is required to apportion to each public high school

out of the county fund an amount equal to that apportioned to it out of the State appropriation. The minimum sum that can be apportioned annually from the State appropriation for the establishment and maintenance of any public high school is \$200 and the maximum sum \$600. The total sum annually available for any public high school established under this act ranges, therefore, from \$600 to \$1,800. The high-school funds can be used only for the payment of salaries of the high-school teachers and the necessary incidental expenses of the high-school grades.

There are now from one to four public high schools in each of 96 counties of the State. There are therefore four counties in which no public high schools have yet been established. For the proper maintenance and development of these high schools more money will of course be required.

It is our hope to be able to select the best high school in each county, taking into consideration the location, the accessibility, the environment, etc., and develop this into a real first-class county high school, doing thorough high-school work for four full years and some vocational work in agriculture, sewing and cooking, and other rural-life subjects. Around this school should be built a dormitory and a teachers' home. The dormitory, properly conducted, would afford an opportunity for the boys and girls from all parts of the county to board at actual cost. Many of these could return to their homes Friday evening, coming back Monday morning. Many of them who do not have the money to spare to pay their board would probably be able to bring such provisions as are raised on the farm and have them credited on their board at the market price. A small room rent could be charged each student. The principal's home would make it possible to secure a better principal and keep him probably for years, thereby giving more permanency to the school and more continuity to the work, making a citizen of the teacher and enabling him and his family to become potent factors in the permanent life of the community, contributing no small part to uplifting it, morally and intellectually, by their influence. Then the other high schools in different sections of the county should be correlated with this central school, and the course of study in these should be limited probably to not more than two years of high-school work, requiring all students desiring to pursue the last two years of the four-year course to attend the central county high school, which will be fully equipped in all respects for thorough high-school work.

Thirty-nine of these public high schools now have 46 dormitories, in which more than 18 per cent of the county high-school pupils secure board at actual cost and pay for it in money or in provisions at the market price.

That the effect of consolidation has not everywhere proved satisfactory is evidenced by the following quotation from the 1917 report of the inspector of high schools in Minnesota. There for several years a law has been in force making possible the affiliation of a number of rural schools with a central school of 12 grades, one superintendent overseeing all the work.

As a State-wide policy, association of rural schools with a central school as a means of improving the rural schools is not satisfactory. The superintendent of a village or city school system is, by training, experience, and lack of first-hand interest, unsuited to the task of supervising rural schools. The exception proves the rule. Withdraw State aid for association, and the entire fabric which has been building for eight years would fall to pieces. In few places has it brought lasting good to either party to the contract. The villages and cities will never succeed in making over the rural school or otherwise materially improving rural-life conditions. Like the rest of us the farming people must and will work out their own salvation. The great benefits which we expected from association were to come as the result of closer and more skillful super-

vision. But, with a few notable exceptions, we have accomplished nothing for the improvement of the rural school and have wrought injury to the central school itself by scattering the time and interest of the superintendent over too large and diversified a field.

It should be evident to even a casual reader that all programs for consolidation more or less tend toward a centralization of authority. Whenever funds are supplied from a central source, direction of work naturally follows. Repeatedly in the report are found "the course of study as outlined or approved by this office," and similar phrases. No theme was more frequently or emphatically presented at the Atlantic City meeting of the Department of Superintendence than the necessity of State and Federal aid to schools in order not only to equalize the opportunities for education but also to safeguard the interests of the larger political and social units. The tendency and the underlying sentiment toward centralization are strong; before induration they should be carefully and fully considered as part of the new national program.

LARGER USE OF THE SCHOOL PLANT.

Another tendency manifested in the reports of the biennium is toward a more complete use of high-school buildings. The marvelous increase in registration during the past years has made it obvious to the observant that even the ambitious building program could not long satisfy the demands upon it. Now, partly because of the great enrollment in secondary schools and partly because the war has very generally put a stop to new construction, there are numerous reports, especially in eastern cities, of high-school buildings being occupied more or less all day by two or more platoons of pupils. This duplicate use of high-school buildings is found very generally in New York City and also in Schenectady, Jamestown, and Erie, N. Y.; New Haven, Conn.; Paterson and Jersey City, N. J.; Chelsea, Mass.; Kansas City, Mo.; and Dallas, Tex. Many cities report that in the high-school building are held public meetings of various kinds; in Stamford, Conn., for example, during 1916-17 there were in the high-school building for the public 15 lectures, 39 receptions, 18 entertainments, 22 civic meetings, and 8 "other functions," with an estimated total attendance of 16,900. More and more high-school buildings are open for evening schools, for summer schools, and for other activities during the vacation months. The Washington Irving High School in New York City, for example, during the summer of 1918 was used as a regular academic summer high school; as a school to fit adult women for Government service; as a recreation center, using the gymnasium and roofs for play and dancing and the assembly hall for concerts; as a community forum, where various groups met for the discussion of public questions; and as quarters for university extension courses.

THE HIGH SCHOOLS AND THE COLLEGES.

Less than formerly is being said about college entrance requirements, partly because the colleges have, from time to time modified their demands, partly because a larger number of high schools, usually the small or the weak ones, attempt for all pupils nothing but what is required for entrance to college, and partly because many other secondary schools are differentiating their work, preparing some pupils for college and others for the immediate demands of society. The most significant changes regarding college entrance during the biennium were probably the new requirements of four prominent women's colleges of the East and the decision of the North Central Association of Colleges and Secondary Schools, in the territory of which is 55 per cent of the high school population, not to participate further in the National Conference on Uniform Entrance Requirements. It is stated that now not more than 15 per cent of the students who enter college do so by passing admission examinations.

The criticism by colleges of the high schools and their work has been very neatly turned by Inspector Hand, of South Carolina, in his annual report for 1917:

Much has been said and written in recent years about the increased requirements for college entrance. The requirements have been increased. But there is another side to the matter—one that is very rarely mentioned. What advance has been made in the standards of the colleges beyond the entrance requirements? How much higher grade of work is the freshman class doing? How much higher grade of work is the senior class getting? A close comparison of some of your catalogues for 1909-10 with those for 1916-17 reveals a curious, if not incongruous, state of affairs. Colleges that have within that time almost doubled their published entrance requirements are doing almost the same work they did seven years ago. For illustration, take the subjects that are fairly well graded, such as mathematics, Latin, and English. In numerous instances the wording describing these courses has not been changed in years. In many instances the textbooks have not been changed. In others the textbooks have been changed only as to authors. In still others considerable changes have been made in the freshman and sophomore work with very few in the junior and senior work. This situation explains how pupils from ordinary four-year high schools are still getting into the sophomore class with discouraging frequency.

He goes on to point out that all of the 15 colleges of South Carolina that "require" 14 units for admission are not justified in so doing by either their own work or by that of the high schools of the State, and that in the freshman class of these colleges there are 146 per cent of the number of pupils in the fourth year of high schools in the State in the preceding year. Fully one-half of the freshmen entered *on condition*.

Your patrons and the public have a right to know just how these conditions are removed. In how many hours do you work off two units of conditions requiring in the high school 240 sixty-minute hours? Who does the work and in what manner is it done? Show the public in your catalogues how it comes about that a 12-unit student with two units to make up can graduate on schedule time with the 14-unit

students without hurt to either. What effect is the plan going to have on the maintenance of four-year high schools? It is already telling against them.

The criticism is quoted at length because of its pertinency to conditions in several other States as well.

There is evidence of an increasing effort by the high school to inform elementary pupils of its offerings and opportunities. Some cities (e. g., Milwaukee) publish handbooks for the information of eighth-grade pupils; and many others (e. g., Decatur, Ill., and Dallas, Tex.) publish similar handbooks that are distributed to the incoming freshmen in order that they may quickly adjust themselves to new conditions. In Cleveland, Ohio, the seniors in different high schools are reported to have visited the eighth grades from which they came and there to have made brief talks on the benefits of high-school education.

Data in numerous reports indicate the growth of a more critical attitude of schoolmen toward their work. Statements of "impressions" and of untested experiments are more and more giving way to records substantiated by standard measures and by definite figures. Because of the complexity of the aims in secondary school subjects, few standard measures have so far been developed; but in several surveys and city reports are the scores of high-school pupils in spelling, in composition writing, in reading, and in algebra; the Ayres, Hillegas, Kansas or Thorndike, and Monroe or Rugg and Clark measures being used. When the purposes of each phase of secondary education have been more clearly defined, we may expect the development of tests adequately to measure accomplishments of all kinds.

FAILURES AND MARKS.

It is interesting to note the concern that is now being taken by school administrators with failures and school marks. The academic studies concerning these topics, startling and disappointing as they have always been, are now being applied widely to reveal information that will lead to the improvement of school work. El Paso, Tex., Stamford, Conn., Paterson, N. J., Topeka, Kans., and Altoona and Johnstown, Pa., are cities that have published in their annual reports studies of failures in their high schools. Supt. Cary included in "Education in Wisconsin" a study by Jeanette Rankin of the number and per cent of pupils dropped, failed, and promoted in 75 high schools of the State. This is the most comprehensive of recent studies. It shows that for the 75 high schools 10 per cent of all the student-hour work was dropped and 9 per cent failed. As usual, the worst records were during the first year, in the more conventional subjects, and by the boys.

A study of the marks recorded by subjects and by teachers frequently leads to a revision of the marking system. The story of how this happened in one school is interestingly told by Supt. Camp, of

Stamford, Conn., in his report for 1917, and afterwards more elaborately in the School Review. The weighting of marks so that they will give qualitative as well as quantitative credit seems to be widely accepted, and individual schools report that the plan when used has given satisfaction. In Chicago Supt. Shoop recommended shortly before his death that credits of increasing weights be given by the high schools for the subjects from freshman to senior. This would be a variation of a rather widespread practice of denying a pupil the privilege of taking for credit any academic subject listed in the curriculum more than one year above or below the class in which the pupil is.

RETARDATION, ATTENDANCE, AND ELIMINATION.

Closely related to a consideration of failures and marking systems are the studies of retardation, attendance, elimination, the source of high-school pupils, and the immediate destination of the graduates. Age-grade tables have for a number of years been common in reports on the elementary schools; they are now appearing with increasing frequency in the sections concerning the high schools. The worth of such a study is determined, of course, by what results from it; there is no apparent value in merely collecting and publishing the figures. One superintendent very properly is pleased with the number of over-age pupils in the high school, as he had made a special effort to recruit for further study young men and women who had prematurely left school for work; another administrator would with equal propriety be so disturbed by such a showing as to make a study of the efficiency of the grammar grades. Several schools report the number of pupils who are present for different proportions of the semester, but not one of them correlates the data with the facts concerning success in school work, and not one of them presents any program for improving the attendance.

One of the most pleasing results of the secondary school development is its increased holding power. In scientific studies the term "persistence" is replacing "elimination." The losses between the beginning of the ninth grade and graduation, however, are still very large. Pickell and Winkelblech, using a rough measure, have showed that in the States the highest percentage of the freshman class to be in school four years later is 54, in Indiana; the lowest, 17, in the Carolinas. For the United States the percentage is 38. In New York City, where a large number of pupils are said to enter the high schools to await the time when they may secure working papers or to ascertain by sampling whether they will like the work or not, the percentage is as low as 21. Supt. Cary reports that in 1916 the enrollment of Wisconsin high schools was distributed as follows: Special students, 1; freshmen, 34; sophomores, 29; juniors, 20; seniors, 16. Of the 16 seniors, 14 graduated.

Inspector Meredith records the progress of the class entering New Jersey high schools, as follows:

Year.	Grade.	Number.	Per cent.
1914.....	IX	16,998	100
1915.....	X	11,057	65
1916.....	XI	8,072	47
1917.....	XII	6,502	32

El Paso, Tex., La Crosse, Wis., Paterson, N. J., Topeka, Kans., and other cities present tables showing the number and percentage of elimination by semesters and by causes; and Kansas City, with its efficient bureau of measurements, publishes a comparative table that contains the approximate percentage of all pupils entering the public schools who complete the high-school course in 17 cities. The range is from 7.3 and 7.4, for Newark and New York, to 25.8 and 25.9, for Portland, Oreg., and Seattle. "In 1891," the Kansas City report continues, "only 4 per cent of our pupils who entered the elementary schools completed the high-school course, but in 1917 this per cent had increased to 19.8." The Kansas City report for 1917 also shows the percentage of high-school pupils dropped annually from 1900 to 1917. The median percentage for the 19 years is 20.1, with a probable error of 1.1; however, the average for the last 9 years is 19.4, or 1.4 per cent less than that for the first 9 years of the period.

HIGH-SCHOOL PUPILS.

In "Education in Wisconsin," we are told the source of high-school pupils. In the whole State—where, by the way, 17 per cent of all city pupils are in high school, as compared with 7 per cent of all country pupils—63 per cent of the pupils entering secondary schools in 1915–16 come from local city elementary grades, 2 per cent from the elementary grades of other cities, 7 per cent from State graded schools, 18 per cent from rural schools, and 10 per cent from private and parochial schools. Of the graduates in 1915–16 of the eighth grades of Wisconsin, 46 per cent entered high school from the rural schools, 41 per cent from the State graded schools, 85 per cent from the village grades, and 85 per cent from the city grades. These figures, while encouraging as indicative of progress, show that there is still much to be done even in such favored communities to equalize opportunities for secondary education. Such information should be had for many cities and States, so that a new national program may be soundly based on facts.

No less important than the source of our high-school pupils is what becomes of them immediately after they graduate. The most complete recent study seems to be that in the Des Moines Public

School Pupil and Employment Vocational Guidance Bulletin No. 2, 1916. In this we are given a summary of the study of 380 graduates of the public high schools in 1914, supplemented by a tabulation of the overambitious plans of the senior class for their immediate future, of the occupational distribution of the parents of children attending high schools, and of what the employers of graduates have to say about them. Other tabulations of the occupations of parents of high-school pupils are given by Thorndike and by Koons in Educational Administration and Supervision. Those who believe that the primary duty of the schools is to prepare their pupils to perform better the desirable activities that they are likely to perform any way will find in such tabulations much information to influence the reorganization of courses of study.

HIGH SCHOOLS FOR NEGROES.

One phase of secondary education has never been fully considered, that of negro boys and girls. In the South, where enough negro pupils desire secondary education to warrant it, segregated high schools are established, but the curricula and courses are often not well adapted to the peculiar needs of the pupils. The provisions at St. Louis must be cited as conspicuously good, however. Frequently the equipment is poor and the content of the courses highly academic. Age-grade tables, as those from El Paso, show the negro pupil considerably retarded, and the elimination everywhere is high. In Louisville, Ky., for 1915-16, only 10 per cent of the students were enrolled in the senior class, and the sophomores were 44 per cent of the number enrolled as freshmen. In the whole State of Kentucky in 1916-17 there were 32 negro high schools, with an average enrollment of fewer than 41 pupils, 1,225 negro pupils for the entire State. Half of the entire enrollment was in the freshman class and only 9.4 per cent of it in the senior class. It should be noted that in these schools the average value of the equipment for manual training and domestic science was less than \$700, ranging from \$25 to \$2,150. The per capita cost for conducting the 32 schools was \$12.

In the North, negro children when they apply are admitted to high schools with little or no distinction because of their race or peculiar needs. Some years ago Mayo showed that in one of the New York City high schools the negro pupils, although a very highly selected group, did work inferior to that of the white pupils. In the 1917 report of Supt. Wilson, of Topeka, Kans., there are tables presenting the facts concerning withdrawal and failure in the high school of negro and white pupils by subjects for several semesters. The tables are prefaced by the statement:

The facts shown in the following tabulations I am reporting with regret. The tables show an abnormally high per cent of failures among the colored pupils. * * * The facts are that the colored pupils show a lack of efficiency somewhere in the system. The problem is not one for the cheap politicians or the demagogues of either race.

The facts presented seem to show that in the Nation as a whole the conditions of secondary education are not as satisfactory for the negro pupils as for the white. If the State affords education not as a luxury for the individual, but rather as a serious investment for the return which will come to itself, it can not safely neglect any important group of its people.

SECONDARY SCHOOL TEACHERS AND PRINCIPALS.

Before the declaration of war by the United States the movement for improving the quality of secondary school teachers was strong. Many States, particularly those in the North Central Association territory or contiguous to it, had adopted for high schools standards which included one or more items concerning the preparation and experience of teachers; and the inspectors in several reports stated that the quality was steadily improving. The legislative committee of the Kentucky Educational Association in 1917 passed the following resolution:

Since the rules and regulations of the State board of education, under the requirements of statutory law, fix the minimum academic scholarship of teachers in standard four-year high schools at the equivalent of high-school graduation plus two additional years' training in normal schools or colleges, we favor the enactment of these regulations into statutory law for the advice and government of boards of education and trustees throughout the State.

Washington has raised its requirements for high-school teachers to a complete college course which includes 12 semester hours in education; and the State superintendent of Utah announces in his report for 1916 that:

The State board of education has wisely increased the requirements for certificates to teach until at present high-school teachers must have completed a standard college course of four years, and this must include, or the applicant must have in addition to his degree, after June 30, 1917, one year of professional work, 18 hours of which must be strictly educational subjects.

This is essentially the requirement of California, a State which for a number of years had led the country with its standards for teachers of public high schools. Even Louisiana, the schools of which have been handicapped by extremely inadequate appropriations, adopted in 1916 a standard that will be gradually raised until the minimum requirement for teachers in high schools is graduation from a four-year college or university course. This standard can hardly be attained unless the State makes a material increase in salaries for high-school teachers, the average at that time being \$680. As an illustration of a practical set of requirements, those from New Hampshire are given, together with the introduction, both from Circular No. 1, 1917.

At this time it is impossible to obtain secondary teachers trained for their work. We will accept this condition for the present, but we must insist that teachers have no other capital defect beyond their ignorance of the teaching process. We have

long demanded that they be satisfactory in character and in mentality. We must now insist that they have in addition sufficient maturity and experience to make them leaders of young people, and sufficient knowledge so that they may guide them. This department plans to uphold superintendents and headmasters in their efforts to secure only qualified teachers, and to this end will make the specific approval of the teachers engaged a preliminary to the approval of the school.

The following schedule is published to enable school officials to determine the general education and the special training to be required of candidates. It will be noted that in two notable particulars this statement differs from those given before. (1) A real requirement is set for the education of teachers of commerce. The commerce courses have been the least successful and the least honored of secondary courses, and a common reason is that the teachers have seldom been the equal of the teachers in other courses in education, in experience, or in maturity. This requirement is designed to prevent the approval of such teachers. It is desirable that schools drop their commerce curriculum if they are unable to secure qualified teachers. (2) The second change is in required special preparation. It is insisted that teachers be not assigned to teach subjects with which they are not familiar.

General education required.—Teachers must have a bachelor's degree from an approved college.

Exceptions.—Teachers who have studied four full years in approved schools of post-secondary grade.

Teachers who were in service in New Hampshire approved secondary schools prior to July 15, 1905.

Teachers of modern languages who have received adequate European or other training. Individual cases to be approved by the department. Provided in this and the three cases following that not less than 80 per cent of their teaching be in their specialized subject.

Teachers of domestic arts who have pursued at least three full years of post-secondary study in approved special institutions.

Teachers of commerce who have pursued at least two full years of post-secondary study in commerce in approved special institutions. In addition they must have two years of general post-secondary study, of office work or of successful experience in teaching.

Teachers of mechanic arts with scholastic and practical preparation sufficient for needs of their work. Individual cases to be approved by the department.

Teachers holding Grade B certificates whose work is restricted to grades seven to nine, except as specifically approved.

Teachers who have one, two, or three years of post-secondary study in approved institutions may be approved to teach courses not above the corresponding years of the secondary program.

Teachers who fail to meet the above qualifications but are now teaching with success in approved New Hampshire secondary schools. Individual cases to be approved and the courses that may be taught to be specified by the department.

Special preparation required.—Teachers must be prepared by two or more years of post-secondary study of each subject they propose to teach, such study to include the branches of the subject presented in the secondary courses.

Exceptions.—Teachers who have but one or two classes in a subject may be prepared by one year of post-secondary study of that subject.

Each year of post-secondary study may be replaced by two years of successful teaching of the subject in approved secondary schools.

For inexperienced teachers the department may waive the minimum requirement for one class only. Individual cases to be approved.

These illustrative standards are much more encouraging, however, than the reports of actual conditions. The progressive State of Wisconsin reports that, in 1916, 79 per cent of its high-school teachers in cities, and 56 per cent of those in county high schools, were graduates of colleges or technical schools, no account being taken of the standing of these higher institutions. Pennsylvania reports that only 46.2 per cent of its high-school teachers were in 1917 graduates of colleges. State Supt. Morrison makes a frank statement of the conditions in New Hampshire:

Of the 507 different teachers employed in secondary schools of all classes approved by this office for the school year 1915-16, 393 or 77.5 per cent were graduates of colleges which grant the bachelor's degree. Of the remaining 114, the large majority were instructors in practical arts subjects judged to have had the requisite special training for instruction in the subjects which they teach. Twenty-five were teachers of modern language and other liberal arts branches who were not college graduates but who had prepared themselves by special study for instruction in their chosen fields and were deemed to have had the full equivalent of college graduation. The remainder of the 114 were graduates of normal schools or equivalent institutions teaching in junior high schools or third and fourth class high schools. Ninety-three per cent of all teachers of liberal arts branches in first-class secondary schools were graduates of colleges.

We have less than a dozen teachers of modern languages in the State who are thoroughly competent in education to teach modern languages in a high school, but most of the remainder are passably competent; less than 20 who are thoroughly competent for science; less than half a dozen for history; a dozen for mathematics; a very few for Latin; almost nobody in English unless the pedantic conception of the language and literature of the mother tongue which most of them bring from college is competency. And yet the teaching staff of our secondary schools is better educated to-day than it was 20 years ago, when it was no uncommon thing for teachers to be employed for high schools whose education had been limited to that of the schools in which they taught.

We have still in this State, as in most States, a secondary teaching staff which is wholly untrained. Not one per cent of the secondary teachers of the State have ever had any professional training at all comparable to what 44 per cent of the elementary teaching force has had. A few have taken courses in education in college, and that is a help.

There are reported 147 persons teaching in the secondary schools of the State in the school year 1915-16 who graduated from college in 1914 or 1915. This is more than one-third of all the college graduates teaching during the year, and the same proportion practically would hold for the noncollege teachers. That means that you turn over your boys and girls at their most impressionable age to striplings who are without training or experience, who have no notions of teaching except those which they bring with them from college; and who in most cases have no intention whatever of teaching beyond the few years which form a fitting interlude between college and matrimony. We wouldn't deny them the latter, but we do think that if they are going to teach at all they ought to learn how to teach just as do the girls who are two years younger and who are teaching in the elementary schools.

Our notebooks and records of inspection tell a wretched tale of the farcical instruction commonly found in the classrooms of these young teachers, particularly in English, both language and literature, in history, in languages and in science. Ordinarily teaching consists in assigning pages out of an incomprehensible textbook

or dictating from a college notebook. And this to boys and girls of an age which need skillful teaching beyond any age other than that of the primary school.

Of course, there is found the occasional "born teacher," and, on the other hand, anybody who has the mentality to have won through college improves through experience. But the point of view is prone to remain permanently formalistic, and it too often rapidly becomes pedantic.

In order that administrators might have some index of the kind of teachers the different colleges are furnishing the schools of New Hampshire, Dr. Morrison has asked the several superintendents and principals of the State to rate their teachers who were recent college graduates. The following instructions were used:

In rating use the letters A, B, C, and D. Use A for a teacher who is all that you could reasonably ask, efficient in practice and possessed of an understanding of what she is doing and why she is doing it. Use D for teachers who were incompetent and ought to have been dismissed or were dismissed. Use B and C for grades between. A "B" teacher may be thought of as characterized by the term "Good average." A "C" teacher is one who is rather below the mark and ought to be dismissed unless she improves, but in whose case there is ground for hope that she will improve. She is not incompetent. Mark critically and severely.

These ratings for the whole State are tabulated by colleges and published.

State High School Inspector Hand, of South Carolina, makes an even more depressing statement of facts as he sees them in his State:

To anyone familiar with the conditions that obtain in many places throughout the State, it is simply amazing to see the absolute indifference of the people as to the qualifications of those who teach their children and fleece them of their money. Men and women innocent of any charge of education, without any aptitude to teach, and without any experience are put in charge of schools, in the face of the fact that they are to have little, if any, supervision. It is safe to say that there are in South Carolina 500 white teachers holding legal certificates to teach who could not make a grade of 50 per cent on the studies of the eighth and ninth grades of our public schools, if examined as rigidly as are the pupils of these grades in the best schools of the State. It would be unsafe to say how many white teachers are holding certificates granted on all manner of pretexts, from long experience (successful or unsuccessful) down to two weeks' enrollment at some summer school. Notwithstanding the fact that almost anybody can get a certificate to teach school, there are in the public schools not fewer than 100 white teachers drawing salaries without any semblance of legal authority to teach. Some of them have been teaching from 10 to 20 years without a certificate of any kind.

These statements have concerned the teachers of entire States. From the following quotation from the 1918 report of Associate Supt. Tildsley, of New York, it seems that even cities where the highest absolute salaries are paid are suffering materially from the low quality of new teachers entering the high schools. Abnormal business conditions are not the only cause.

We have experienced this past year an increasing difficulty in securing men teachers of the personality and training New York City has a right to demand in the teachers of its youth. The rapidly mounting cost of living has so reduced the purchasing

power of salaries that men, and especially married men, can not live on the salaries which were fixed on the basis of a much lower cost of living. While teachers' salaries have been reduced through the operation of rising prices, opportunities for employment at rising salaries have been opened up in business, with the result that not only is the supply of men teachers being cut off at its source, namely, the graduating classes of our colleges, but teachers now in our schools are being drawn away by the larger salaries paid in other occupations. Unless the high-school pupils in this city are to be taught entirely by women or by men of inferior personality inadequately trained, and without the character and the qualities of leadership which are needed in those who are expected to train our boys and girls for the responsible duties of citizenship, a very considerable increase in the salaries of high-school teachers must be made. Much as we all deplore the constant increase in the tax rate, the people of New York must realize that in this city, with its large foreign population, the cost of education must be reckoned a first charge on revenues.

It needs only a casual comparison of the so-called salaries of school-teachers with the wages now received by men and women in the world of industry and commerce to explain these conditions and others equally bad, though for various reasons not presented in school reports.

THE TENURE OF TEACHERS AND PRINCIPALS.

However good teachers and principals are, schools can not be satisfactory unless tenure in the same position continues over a considerable period. In Wisconsin the median length of experience for all high-school teachers was in 1916 four years; the median length of service in one locality was one year or less. In Pennsylvania the story is only a little better: Half the teachers who are graduates of colleges have taught five years or less, and half of those who are only graduates of normal schools have taught only two years longer. The condition in small high schools is everywhere pitifully bad, changes of teachers occurring with great frequency, and supervision being negligible. From California, where salaries are relatively high, come the following report and recommendations:

The commissioner has compiled data showing that the tenure of principals and teachers in the small high schools is all too short. Of the 32 small high schools established previous to 1911-12, 6 made no change in the principalship during the four years ending June 30, 1916; 11 made two changes; 12 made three changes; 2 made four changes; and 1 made five changes. The average tenure of principals was a little over two years. These schools in 1915-16 employed 104 assistant teachers. Of this number only 10 were teaching in California high schools in 1911-12. It would seem therefore that the small high schools are taught for the most part by teachers with little experience. By fixing the minimum salary of principals at \$1,600 per annum, for example, which is \$100 less than the average now paid, and advancing the salary \$100 per annum until a maximum of \$2,000 is reached, school boards in charge of small high schools will undoubtedly be able to retain the services of principals for a term of years. It is desirable that high-school boards be authorized by law to employ principals for a four-year term after one year of probationary service.

When we consider teachers' salaries, we find a similar situation. Good teachers are in demand and better salaries attract them. By adopting a salary schedule based upon experience the school board will establish a condition favorable to the retention

of teachers by the district for a longer period. The commissioner suggests that the minimum salary in small high schools be fixed at \$1,000 per annum, and that provision be made for an increase in the salary annually until a certain maximum is reached. The additional amount paid to teachers under this plan will yield better returns to the community than the same amount expended for an additional teacher.

New Hampshire has a worse story to tell:

The teaching force is very unstable. Very nearly two-fifths of all our secondary teachers were new to their places last year. Three-fifths were holding their positions for the first or second year; 37.4 of the college graduates had held their degrees for less than two years. This proportion holds year after year, and the situation is almost fatal to the efficiency of our higher institutions. Only about 9 per cent of our whole secondary teaching force were graduated from a New Hampshire institution. With rare exceptions, the remaining 91 per cent have no stake in New Hampshire, they are not personally the best of material, they do not understand our ways, and naturally they move at the first opportunity.

The situation in Massachusetts is graphically told in the two accompanying tables, the first showing the length of tenure of principals in each class of high schools, Class IV being the weakest, and the second revealing the absurdly small increases in salary that the principals were given. Approximately one-half of those who held their old positions had no increase at all, and 72 per cent of those who were rewarded were given an increment of \$100 or less, 26 per cent very considerably less. The wonder is that trained men and women enter at all, to say nothing of remaining in, a vocation that offers such niggardly rewards for service.

Tenure of principal's position.

Number of years principal occupied his present position previous to September, 1916.	Number of high schools.				Total.
	Group I.	Group II.	Group III.	Group IV.	
0 years.....	8	14	9	21	53
1 year.....	8	6	10	9	33
2 years.....	12	4	12	10	38
3 or 4 years.....	11	11	16	7	45
5 to 10 years.....	23	11	10	7	51
Over 10 years.....	23	7	6	.....	36
Total.....	85	53	63	54	255

The following table shows that of the 203 principals who occupied their present positions last year only 100 received an increase in salary.

Increase in principal's salary.

Increment in salaries.	Number of high schools.				Total.
	Group I.	Group II.	Group III.	Group IV.	
Change in principal.....	8	14	9	21	53
No increment.....	44	22	22	15	103
Increment of \$50 or less.....	2	4	13	7	26
Increment of \$51 to \$100.....	14	8	16	8	46
Increment of more than \$100.....	17	5	3	3	28
Total.....	85	53	63	54	255

A State policy of providing adequate increments in the salaries of high-school principals would do much to attract men of superior ability and to reduce the excessive changes in the principalship.

The median length of service in their positions by principals of first-class high schools in Missouri in 1916 was less than two years.

EFFECT OF THE WAR ON TENURE.

However bad conditions were in 1916, they became considerably worse with the entrance of the United States into the war. Large numbers of the young men teachers entered the Army, as there were no provisions by the Government for retaining them in the less dramatic but equally important national service of teaching. Some, especially teachers of science and of industrial subjects, have forsaken the schoolroom to aid in the campaign behind the lines; and recently there has been a steady and successful movement to enlist some of the most desirable young principals and teachers in various kinds of social work among the soldiers. The schools have willingly given up all these men and women as their part in winning the war, but it is a national shame that a false sense of economy on the part of the public should have permitted so many thousands of other principals and teachers to be tempted from the schools by the large increases in wages offered them by industries of all kinds. It is imperative that a program be formulated at an early date for recruiting for the secondary schools the highest quality of young men and women and for giving them adequate academic and professional training to equip them to educate the million and a half boys and girls who are seeking some form of advanced education.

THE TRAINING OF TEACHERS AND PRINCIPALS.

For the 1916 report of State High-School Inspector Kingsley, Prof. Inglis, of Harvard, prepared the following statement concerning the preparation of high-school teachers in Massachusetts. An ideal program for the training of such teachers has been formulated and recently published by the College Teachers of Education.

The colleges of Massachusetts have always been the main source from which teachers are recruited for the secondary schools of the Commonwealth. Until the last decade of the nineteenth century the training thus afforded included solely instruction in the subject matter of the various studies to be taught. No attempt was made to provide specific training through professional subjects of education until 1891, when such training was begun at Harvard University. At the present time such courses are to some extent provided in all except 4 of the 18 colleges of the Commonwealth.

The desirable forms of professional training for secondary school-teachers and the work now offered by the colleges of the Commonwealth are as follows:

1. Instruction in the subject matter of the studies to be taught in the secondary school. This is now well provided in nearly all the colleges.

2. Instruction in the fundamental professional subjects of education, such as the history of education, educational psychology, and principles of education. Thirteen or fourteen colleges in the State offer such courses, though in some cases these courses are taught by instructors not primarily interested in education as a professional subject of study.

3. Instruction in the principles and problems of secondary education. Nine or ten colleges offer such courses. Much remains to be done in this field.

4. Instruction in the methods of teaching in the secondary school. This may be provided separately or combined with instruction in the principles and problems of secondary education, or combined with instruction in the teaching of various subjects. This work is offered in a few institutions only, and is generally admitted to be inadequate.

5. Instruction in the teaching of various subjects. Five or six colleges provide some courses of this nature, but the condition is very unsatisfactory, in part because it is uneconomical to provide separate courses in the teaching of all the various subjects on account of the small number of students intending to teach a single subject, and in part because such courses are commonly taught by the regular college instructor in those subjects, whose experience in secondary-school teaching has been slight or entirely lacking.

6. Experience in supervised apprentice teaching. Nine or ten colleges now offer facilities for such apprentice teaching under professional supervision.

In 1916 about 700 graduates of Massachusetts colleges entered the teaching profession, for the most part in the secondary schools of this and other States. Of that number approximately 500 had taken at least two professional courses in education. Returns from colleges show that few, probably less than 100, had done some apprentice teaching as a part of their professional training in the college.

The colleges of Massachusetts have made a promising beginning of training teachers for the secondary schools of the State. Further progress in that direction is conditioned by a number of factors, among which the most important are—

1. The establishment of a system of certification which shall prescribe standards of admission to the service and encourage the professional training of secondary-school teachers.

2. Recognition of the fact that a graduate year of professional study is essential for the adequate training of such teachers, and provision for such a graduate course.

3. The provision of greater and better facilities for apprentice teaching under supervision as a part of the training of secondary-school teachers.

4. Provision of greater and better facilities for prospective teachers in the methods of teaching each of the various subjects in the secondary school.

It is to be noted that the first three of these factors are to a great extent dependent upon State action. Until the present, the initiative in providing facilities for the training of secondary-school teachers in Massachusetts has been taken by the colleges without the active assistance or cooperation of the State. It is probable that the extension of those facilities must depend to a considerable degree on the action of State and local school authorities.

New Hampshire suggests the following steps as feasible and likely to lead to a higher grade of scholarship in the teaching force of its high schools:

1. Let our State college be so organized as to give each student preparing to teach in high school four years of intensive work in the single subject which he plans to make his specialty. He would have minor subjects, also, of course. There is no good reason why the young person who has finished high school, and who knows that he is to teach at all, should not be able to choose his specialty before entering college as well as on the day he applies for a job.

2. Encourage postgraduate work by special State aid to graduate teachers who attain the master's degree, after much the same plan as that of our present State aid for qualified teachers in the elementary schools, which has worked so well.

3. Let the State college aim to furnish the bulk of the new teachers needed to recruit the secondary-teaching staff.

SUPERVISION OF INSTRUCTION.

Supervision is necessary for the improvement of teachers, whatever their training or experience. It is especially needed where it is least given, in the small high schools that are taught by young men and women, many of whom would rapidly become professional and increasingly expert under the guidance of a supervisor of insight and sympathy. As a rule, the county superintendent on his infrequent visits to a school gives little attention to the high-school teachers, partly because he feels that their training must have fitted them for their tasks and partly because the aims and standards of secondary-school teaching are still indefinite. The State high-school inspector probably has a larger influence at his annual visit, chiefly because he comes with the prestige of his position and a perspective gained from seeing the work of hundreds of teachers who are attempting to give instruction on the same or similar subject matter. It would be well if the functions of inspection and of supervision could be separated, as in Arkansas. Data from the several States, much of it unpublished, give evidence that the State inspectors vary much in their helpfulness to teachers. In Maryland, where, since the school survey supervision has been emphasized, State Inspector North reports that he has visited classes, recorded data on well-devised blanks (see Md. State Rept., 1917, pp. 168-169), held individual conferences with teachers on problems of instruction and with principals on problems of administration, suggested plans for working out desired school improvements, and in a large number of cases met the faculties after school hours, when questions of immediate moment to the particular school and of larger significance in the high-school field were discussed. The report continues:

The plain intent of the present school law, as regards high-school supervision, is that the supervisor shall devote himself primarily to *supervision*—that is, to the task of endeavoring to bring about a better quality of instruction, to improve the actual teaching in the classroom; and though this involves a number and variety of other duties, both in the field and in the office, the outstanding function of a supervisor, as distinguished from an *inspector*, is unquestionably that of helping to improve teaching by working with the teachers now in service. The supervisor, therefore, began the year's work with the plan of working immediately at the actual problems of the classroom; but less than one month's experience convinced him that the year would have to be devoted principally to procuring changes in the internal organization of the schools, and in securing the minimum equipment with which a good quality of teaching might reasonably be expected. The most conspicuous needs of the school as a whole were found to lie in these three directions: (1) More apparatus, textbooks,

materials of instruction, library equipment; (2) rearrangement and better adjustment of school programs to the State course of study; and (3) more and better teachers. Accordingly, this report will review, in a general way, under these three heads the principal points of the supervisor's findings and efforts.

A part of the discussion of apparatus, textbooks, materials of instructions, and library equipment is appended:

There were on the approved list for 1916-17, 72 high schools, 30 of the first group and 42 of the second. Of these, at least 7 of the first group (23 per cent), and at least 20 (47 per cent) of the second group were conspicuously short in these several particulars of the minimum laid down by the State board as requisite for placing a school on the approved list. Most of these schools had been on the list for several years, and many of them had drawn the State aid ever since 1910, when it was first granted; but they had never been furnished, nor would they, apparently, ever have been furnished with sufficient equipment to do genuine high-school work without the steady, insistent pressure and frequent regular inspection provided by the new law. Their shortages were of various kinds; some had no library and no apparatus of any sort; others had the unusable remains of an antiquated library and of an archaic laboratory outfit; and still others had, owing to annual changes of teachers, let their equipment, good at first, run down almost to nothing. These shortages mean that the classroom exercises in science were limited to mere textbook work, answering rote questions, the reciting of memorized portions of the texts; that there was no library reference or supplementary matter available; and that the instruction in the two social subjects, English and history, was simply dying on its feet, being confined entirely to one book—the text used; and the lack of maps and charts, either purchased or homemade, simply petrified the instruction in history and in Caesar.

But supervision is needed also in large high schools, either directly by the principal or by experienced assistants to whom he delegates this important function. This is recognized and strongly urged by Dr. Tildsley, of New York City, in his report for 1918:

What is most needed in our high schools, next to closer and more skillful supervision on the part of the principal himself, is more effective supervision by the first assistants who are chairmen of departments. There is a remarkable disparity in the effectiveness of such supervision at the present time on the part of the various first assistants in the different schools, and even between first assistants in the same school. It seems evident that, in the examinations in the past, scholarship has been given emphasis rather than qualities of leadership and administrative ability. It is to be hoped that in the coming examinations the board of examiners will emphasize personality, past achievement in our service, and proved qualities of leadership, rather than knowledge of the subject matter and even of methods. Scholarship and knowledge of methods, if not accompanied by courage, kindness, and that intangible quality known as leadership, avail a head of a department but little. Contrary to general opinion, our high schools are suffering not from oversupervision, but from undersupervision. Some principals allow themselves to be confined to their inner offices, busied over details which could often be assigned to a subordinate, when they should be in the classroom inspiring the teachers and stimulating the pupils. Some of these principals, while thus giving too little of their time to actual classroom inspection, are not even supervising by proxy, since they have not succeeded in developing heads of departments who are the real leaders and not merely the nominal leaders of departments and who lead because of their grasp of the problems of their department, their initiative, encouragement, and judgment. Weak heads of departments for the most part must be charged against the principal of the school. If the board of exam-

iners has ever erred in placing unfit teachers on the first assistant's list, only in rare instances has pressure been exerted on the principal to take a first assistant not of his own choice. Furthermore, such first assistants have had a temporary tenure for three years, and during that period would have lost their licenses on unfavorable reports of the principals. Heads of departments grow if the principal encourages them or even allows them to grow. They degenerate if the principal gives them no authority and does not encourage the exercise of initiative on the part of his chairmen. A really strong principal will be found surrounded by strong, aggressive, and progressive chairmen of departments composed of enthusiastic, energetic, efficient teachers. Where such a condition does not exist, the responsibility lies with the principal who has stifled the growth of his teachers.

It is obvious that, if effective supervision is to be secured, a greater demand must be made as to training and professional fitness on the principal. State High-School Inspector Calloway, of Missouri, emphasizes this point in his report for 1916:

We need to evolve in this State a position of high-school principal. The city superintendent can not give sufficient time to the supervision of instruction in our high schools. The superintendent with the grade work and with official duties can not effectively do this work. It is clear to me that it must be provided for through the high-school principal. He must be given more time. His work must be organized in such a way that he can find time for work with high-school teachers. The high-school principal should be given more authority and his duties more clearly defined. His status is not at the present time such that his influence with his teachers is strong. He is not taken seriously by high-school teachers, and consequently refuses to take a hand in matters over which he does not have full authority. Both authority and dignity must be attached to this position before our best men will remain high-school principals. When we have created such a position in this State, the high-school principalship will not be a stepping stone to the superintendency. The superintendent now has more than he can do. Such a change will not, in any way, curtail the importance of the position of the superintendent.

Inspector Kingsley, of Massachusetts, also recommends a requirement of professional training:

Too often a principal is selected on the ground that he has a pleasing personality and has been unusually successful in teaching some one subject. These qualifications, while important, are far from adequate. He should be a student of educational problems. It is extremely desirable that he should have taken courses in high-school organization and administration in a college or university. This seems to be a reasonable requirement in view of the summer schools now offering such courses. Experience as principal of a smaller school affords excellent training for similar responsibilities in a larger school, while experience as a department head under a capable principal is of added value.

Not only must the principal be trained, but he must also be given time from his administrative duties to visit classes and confer with his teachers daily in an effort to improve their work. Every one who has studied the situation has found that actually few principals find the time to perform adequately the most important function of their office—the supervision and improvement of instruction. Mr. Calloway, by means of a questionnaire sent to principals of all first-

class high schools of Missouri, St. Louis and Kansas City excepted, found that they distributed their time as follows:

Teaching periods of principals.

Number of periods.	Number of principals.	Per cent of principals.
0.....	6	5
1.....	2	1
2.....	3	2
3.....	12	10
4.....	23	11
5.....	37	30
6.....	34	28
7.....	4	3

Median number of periods taught daily by principals, 5.

Keeping study hall.

Number of periods.	Number of principals.	Per cent of principals.
0.....	44	37
1.....	37	31
2.....	29	24
3.....	9	8
4.....	1	1

Median number of periods given daily by principals to keeping study hall, 1.

Doing office work.

Number of periods.	Number of principals.	Per cent of principals.
0.....	20	16
1.....	61	50
2.....	15	20
3.....	13	8
4.....	11	6

Median number of periods given daily to office work by principals, 1.

Supervising.

Number of periods.	Number of principals.	Per cent of principals.
0.....	82	70
Less than 1.....	8	6
1.....	16	13
2.....	10	8
3.....	0	0
4.....	1	1

Median number of period given daily to supervision by principals, 0.

A similar story is told in the reports from Virginia and Kentucky, and doubtless would be repeated in almost every State if the data were available. With the omission of 31 principals in Virginia and

of 110 in Kentucky who made no report, and of 20 in Kentucky who confessed that they gave "very little" time to supervision, the following tabulation was made:

Amount of time given daily by high-school principals in Virginia and Kentucky to supervision.

Periods.	Virginia.	Kentucky.
	Per cent.	Per cent.
Give no periods.....	61	22
Give less than 1 period.....		9
Give 1 period.....	15	24
Give 2 periods.....	14	21
Give more than 1 period.....	20	35
Give more than 2 periods.....	7	11
Give more than 3 periods.....	2	8
Medians.....	0	1

The situation is bad enough if the figures are taken as recorded; it is worse if they are critically examined. Although there is no disposition to imply dishonesty on the part of principals making returns to the State office as to how they spend their time, it must be recognized that the tendency would be to report a larger number of periods given to professional and supervisory functions than actual daily practice would warrant; moreover, some principals may have misunderstood the instructions. In Kentucky, for example, 12 principals report that they spent from five to nine periods daily in supervision. One-half of these principals were in schools of fewer than 125 pupils, 43 per cent of them in schools of fewer than 50 pupils, and 25 per cent in schools of fewer than 25 pupils. Surely it would be worth while for the State inspector to make a study of the methods and results of such intensive supervision.

Inspector Calloway, of Missouri, makes the following comment on the returns from his questionnaire study, some of the data of which were presented above:

To make a frank statement, there is not in this State, with a very few exceptions, what may rightfully be called a high-school principal. Except as regards some minor duties, practically all of the so-called high-school principals are nothing more than high-school teachers. They are principals in name only. This is borne out not only by the amount of teaching done but also by the tenure of service. Forty-four per cent of the teachers are in their positions this year for the first time, while 43 per cent of the principals are in their positions for the first time. Of the 121 principals reporting, there are only 11 who do not teach as many as three periods, or half time; 6 report no teaching; 2 teach one period; and 3 teach two periods per day; 72 per cent teach four or more periods; 3 per cent teach five periods; and 28 per cent, or more than one-fourth, do a full day's teaching.

As study-hall keepers, 77, or 63 per cent of the 121, keep study hall one or more periods; 85 per cent of the principals give one or more hours per day to office work; 35 per cent give two hours or more; and 15 per cent give three or more hours per day to office duties.

When the question of the supervision of instruction in the high schools is taken up the high-school principal falls far short; 82 of the 121, or 70 per cent, give absolutely no time to high-school teaching besides their own classes. An additional 6 per cent give less than one hour to high-school supervision, and only 22 per cent give as much as one hour to high-school supervision. My observation is that this is perhaps an overstatement of what is really done.

Of the 121 high-school principals, 52, or 43 per cent, are in their positions this year for the first time; 21 per cent are in their positions for the second year; and 16 per cent are in their positions for the third year; 5 per cent have been in four years and 4 per cent for five years. Five high-school principals have been in their present positions more than 10 years.

The State over the high-school principal has no voice in the selection of his teachers; 97 of the 121 report no voice in the selection of high-school teachers, and those who report some voice in the selection show that this is usually only in an advisory way.

The great number of new teachers in our high schools each year as a single factor shows a great need for a supervising principal. The fact that 44 per cent of the teaching force in our high schools change each year is in itself an unquestioned demand for closer supervision. And the additional fact that 32 per cent of the total teaching force has never taught in the high schools before this year is but a further justification of this demand. It is impossible that teachers do satisfactory work under such conditions. Perhaps no other factor is so largely responsible for the shifting each year of high-school teachers as the lack of adequate supervision of instruction. Many teachers come into the high schools enthusiastic and with high ideals of what ought to be done. They are misunderstood by their pupils. Their work does not go as they have planned. They become discouraged, flounder around for a time, and then settle down to the line of least resistance.

EXTENSION OF FUNCTION OF HIGH SCHOOLS.

The growing critical attitude toward the high school, of which mention has already been made in this and in the report two years ago, finds expression occasionally in such a passage as the following from the superintendent at Williamsport, Pa.:

In many ways the high school is doing excellent work, for which both principal and teachers deserve full credit. There are, however, in my judgment, some weak points that ought to be strengthened. One weakness is in the organization of the high school. The general attitude of faculty and students seems to be that children are sent to the school to do a certain amount of work, and that the teachers are there for the purpose of testing the children to find out whether or not they have done their work and to grade them accordingly. Both parties seem to feel that when each has performed his work individual responsibility ends. It does not seem to be the prime motive of the high-school faculty as a whole to bring out the best that is in the pupil, but rather to permit the delinquent to eliminate himself from his class or school through repeated failures. The character of this kind of discipline is negative and repressive instead of positive and directive. Even in some colleges to-day there is a dean whose duty it is to get hold of the failing student early and help him, if possible. Throughout the high-school course there should be continuous growth in self-reliance, willing and cheerful obedience, and closer cooperation between the student body and faculty, and also like relations should exist between the principal and faculty.

Criticism must lead primarily to a clarification of the function of secondary education. Toward this end the appended statement of Commissioner Meredith, of New Jersey, will be an aid:

The high school should assist—

First, by leading the pupil to a conception of the variety and the significance of the work to be done in the world. This may be done, in part at least, through a study of vocations. Pupils may thus be led to see what fields of activity are open both to boys and to girls; what general and what specific personal qualities are necessary for progressive success, together with the special training required. A study of this character would reveal the probable demand for workers in a given field, and also indicate the remuneration to be had in terms of both money and personal and social advantages.

Second, by testing the pupil's capacities and interests over a wide field of subject matter and activities. The high-school period is a time of self-discovery and self-realization for the pupil, and the process of discovering latent interests and abilities is a function both of the teacher and of the pupil.

Third, the school may assist the pupil by giving him definite training in fundamental subjects and by providing for systematic physical education, which should include the inculcation of ideals and standards in this paramount phase of education.

Whatever may be the ideal, there can be little question after reading numerous reports from both city and State superintendents that the tendency of high-school education is strongly vocational. This tendency is likely to be strengthened by the Smith-Hughes law, which by its opportunities for financial aid seems to be influencing strongly the reformulation of curricula. Many schools, however, are finding difficulty in meeting the requirements of the law.

Self-criticism is also leading to a widening of the functions of the high school. The tendency to include in secondary education the seventh and eighth grades as a part of the junior high school is progressing quietly, especially in the largest cities; New York, Chicago, Philadelphia, St. Louis, and Boston having established the beginnings of such schools. The inclusion of two years upward as a junior college is generally approved, but for economic reasons the movement is making little progress. Springfield, Mass., and Kansas City, Mo., have recently established junior colleges. Extension work by high schools has been tried in one county in California, and the departments of teacher-training for the elementary grades is making substantial progress. Reports from the several States testify that the work is proving satisfactory. Evening high schools are of increasing importance, with enrollments encouragingly large; but everywhere the problem is to secure a high percentage of regular attendance. The reports testify that the effort is generally being made to present in these evening schools, as has been done in the schools conducted by the Young Men's Christian Association and other semipublic or private agencies, what the mature students want. Summer high schools likewise seem to be accepted as of growing importance as a regular part of the school system. It is interesting to note that a number of reports justify them by presenting data concerning not only the attendance but also the success of the pupils in earning credits and in maintaining their standing in the successive terms.

One development of high-school work that needs more extensive treatment than is possible in this report is in the growth and use of high-school libraries. From every section of the country have come reports not merely of increased appropriations for books but also of the employment of trained full-time librarians and of the introduction of systematic instruction in library work. Although it is strange that this development should have come so late in our secondary schools, it is no less gratifying that the movement is progressing so generally and with such vigor.

THE WAR AND SECONDARY SCHOOLS.

The effect of the war on secondary schools has been manifest in the enrollment, in the subject-matter of instruction, and in the extra-curricular activities. Mention has already been made of the fact that many teachers and principals have been drawn from the schools by the demands of other service. The pupils also have felt those demands; some of the older ones entering the Army, and many others, especially in centers of industry, undertaking remunerative work. The superintendent of schools in Chelsea, Mass., for instance reports:

During the preceding year there was a large loss of pupils, largely due to the increasing demand for unskilled and inexperienced laborers. This condition was aggravated by the increasing cost of living and the fact that many of our pupils came from poor families in which the older children were called upon to help meet this higher cost of living by going out to work for wages. Undoubtedly the higher wages which were offered for this kind of labor tempted many pupils who had been gradually losing their interest in school to leave in order to go to work. Figures show that in the year 1915-16 nearly two-thirds of those who left school were freshmen.

In New Bedford, Mass., 23 per cent of the entire high-school enrollment withdrew during the year 1916-17, 62 per cent of the withdrawals going directly to work. In Providence, R. I., La Crosse, Wis., and Aurora, Ill., there were losses of from 4 to 7 per cent; and in the State of New Jersey the increase in high-school enrollment for 1916-17 was only 696 pupils, or 1.4 per cent. The large cities, like New York and Boston, have had smaller enrollments than the previous steady growth had led them to expect. But there has been no such emptying of the schools as many had expected; in fact, school reports for 1915-1917 far more frequently mention continued growth in high schools than any decrease in the number of pupils.

Another effect of the war, that in the spirit of the student-body, has been presented by the superintendent of La Crosse, Wis.:

While, in any circumstance, war is a most deplorable thing, in my judgment it has been a most wonderful factor in the development in the secondary school of the spirit of citizenship, honor, integrity, and loyalty. The various war activities which the schools have been doing during the year have been wonderful factors of education.

There is no other one influence which has so emphasized the responsibility of even the high-school boy or girl as a citizen, and demonstrated beyond the question of a doubt the fact that no individual can live in a community and be a part of the community without being responsible to the community, and that no person, even a high school boy or girl, can live in modern society as an individual entirely independent of the other individuals in the community.

From all quarters come similar reports; never before in the marvelous growth of secondary education have the pupils been so enthusiastic, so earnest, and so persistent in their work. This has in large measure been due to the fact that high-school teachers have incorporated fresh material and developed or emphasized it by the war situation in their instruction of history, civics, English, science, mathematics, and practically every other subject in the curriculum. It is difficult to see how those teachers after the success that they report in using meaningful, motivated material can return to the formal work that has characterized so much of high-school instruction. In this connection should be mentioned the careful elimination in various cities, notably in Cincinnati under Supt. Condon, of all material in high-school textbooks that seemed directly or indirectly to support autocratic government. Never before has there been such a widespread and determined effort to make secondary schools the means of inculcating the ideals of democracy.

From schoolmen and from the pupils themselves all over the country there has been a constant effort to learn how the schools can best help in the war. Partly to answer this implied question, the Government has, through the Commissioner of Education, issued a number of bulletins to the schools and to the public at large. Among these may be mentioned "Europe's Educational Message to America," "Secondary Schools and the War," "Suggestions for the Conduct of Educational Institutions during the War," "Work of American Colleges and Universities during the War," and "Government Policies Involving the Schools in War Time," the last one mentioned being signed by five members of the Cabinet whose departments are most concerned. The burden of all those messages has been that the high schools should continue their work and make it more vital for the welfare of the Nation in the years to come. The Commissioner of Education also published recommendations of a joint committee on the teaching of the sciences and of industrial work during the war, and, in cooperation with the Food Administration, issued a series of "Lessons in Community and National Life" for the purpose of inculcating the ideals of democracy and broader conceptions of national life.

All over the country the high schools that were equipped for the work gave instruction to the men in the selective draft under the direction of the National Board of Vocational Education. Classes were conducted in telegraphy, in motor mechanics, in the trades

connected with the construction of airplanes, and in other similar work which the men had been assigned, high-school pupils often assisting their teachers in the instruction. In the summer schools training was in many places given for the Women's Business Reserve Corps, the students being women who were preparing to take the places of men called to the Army. In Philadelphia these courses, under the direction of Dr. Lucy L. W. Wilson, included the elements of business, bookkeeping, stenography and typewriting, or stenotypy, filing, office practice, civics, current history, war-time housekeeping, drawing and draughting, telegraphy, and English expression, oral and written. The extra curricular work of high-school pupils during the year has included various kinds of assistance to officials boards, such as the filling and filing of cards, the tabulation of questionnaire returns, the writing of letters and the addressing of envelopes, the making of posters, and other public signs; securing membership for the Red Cross, the Junior Red Cross, the Young Men's Christian Association, the Knights of Columbus; the making of articles for these organizations; the collection of books for soldiers' libraries; the selling of thrift stamps and bonds; the adoption of orphans in the several devastated countries; aiding in the campaign for conservation of coal and food; gardening and farming. The story of the self-denials, the enthusiastic work, and the effective accomplishment of our boys and girls would make one of the most heroic chapters in the history of secondary education.

FARM SERVICE BY HIGH-SCHOOL PUPILS.

Late in the spring of 1917 there were urgent calls for assistance on the farms by high-school boys, and in response arrangements were all over the country hurriedly made by which boys were excused from some school attendance in order that they might render service. In some cases they went on the farms as regular helpers; in others they did seasonal work as the crops of the neighborhood demanded. A number of schools organized their boys into groups who rented and cultivated a farm of their own. Usually school credit was given boys who worked for three months or so, providing their marks were passing; but of course there were different provisions among the many schools whose pupils went to this temporary work. In Philadelphia the board of education granted furloughs to boys over 16 whose class standing was satisfactory, the furloughs applying to May and June and September and October. In North Dakota the State board of education resolved on May 16, 1917, "that it is the patriotic duty of every school in our State to open not earlier than October 1, in order that as many boys as possible of suitable age can assist in harvesting the crops." This resolution was approved by the

State High School Conference. The board very wisely added to its resolution this memorandum:

This board believes that it is also the imperative duty of superintendents, principals, teachers, and boards of education to urge the attendance at school of all boys below conscriptive age, because the burden of responsibility which will rest upon the rising generation will inevitably be greatly increased by the facts of the war.

Although the appeal for boys was made late, there are reports from all parts of the country that the response was generous, and to the surprise of skeptics the city-bred boy on the whole furnished acceptable aid on the farm. Some of the camps made less money than they had expected, or even after a summer of hard work went into debt; but the balance was on the right side of the ledger; additional food was produced, a demand by boys nearing military age for opportunity to serve was satisfied, and there were numerous by-products of no inconsiderable value. Among these may be mentioned an increased appreciation by the public of the high-school boy, some understanding by the city boy of the farmer and his work, and the introduction of agriculture into several city high schools. Such courses are given in Paterson, N. J., Decatur, Ill., Kansas City, Mo., and Pittsburgh, Pa.

The experience of 1917 revealed possibilities for so great national service that in the several States committees were early appointed to formulate more complete and effective plans than the earlier emergency had made possible. Of all the reports none has proved more intelligent and helpful than that of the committee on mobilization of high-school boys for farm service, Frank V. Thompson, chairman. From this report extensive quotation is made.

On the basis of its experience in 1917 with 1,600 boys—500 in 16 camps and 1,100 on individual farms—the Massachusetts committee made valuable recommendations for the continuance of the work. The following, both direct and implied, are of general interest:

The committee is convinced that, given the three essentials of time—that is, early enrollment of boys and arrangements for employment with farmers, of proper supervision, and of cooperation with the local agricultural organizations—the work can be successfully carried on.

The committee undertook the development of a plan of placement on farms, as follows:

(a) One or more boys on individual farms as requested by farmers, the boys to live in the farmers' homes.

(b) Boys to work through local placement as needed on the farms in their vicinity, returning to their homes at night.

(c) Organization of camps from which boys would go to work by the day or week on farms in the vicinity of the camp.

The season's experience has demonstrated to the committee that the provision made in the high schools of the State for placing boys on farms for day labor, or for longer periods, can and should be carried on under a plan similar to that worked out for this season; that is, through local placement and under local supervisors.

The committee believes that a successful working out of the camp method of supplying labor requires substantial modifications of the 1917 plan. Among the modifications to which it wishes to direct attention are the following:

1. The necessity for immediately beginning a campaign to acquaint the farmers of Massachusetts with the results of camps established this year and the possibilities for next year.

2. The committee should assume the responsibility for and control of the supervision of camps.

3. The director should have control of the location, equipment, and commissary of each local camp, but should in every possible way seek to utilize existing community resources to the end of making the expenses as low as possible.

4. All of these matters mean expenditure of public money rather than private support by subscription. (An estimate for 50 camps in 1918 is made of \$50,000. In 1917 there was an expenditure of \$10,141.31, or \$6.33 for each boy.)

5. The administration of plans the committee proposes involves the following changes:

(a) The appointment of a rather large and representative advisory committee.

(b) A small executive committee, seven members, largely made up of men who have had experience in the work during the season of 1917, who shall be responsible to the public safety committee for the conduct of the work.

(c) The appointment of a director of mobilization of school boys, responsible to the executive committee for carrying out policies, when adopted and ratified by the executive committee of the public safety committee.

(d) The director to be employed at once to carry on the campaign of publicity, of securing cooperation, of making plans for enlistment, of placement: in short, all the work necessary to get an early start on the farm work for the season of 1918.

So far as the experiment in Massachusetts goes to-day the committee finds:

1. That the right type of boys under efficient supervision are valuable in food production.

2. That mutually advantageous working arrangements between boys and farmers can be brought about.

3. That the employment of the boys during the summer, being a seasonable occupation, can be done on a considerably larger scale with no disadvantage to the labor market.

4. That as rapidly as the men withdraw from productive industry for war service, as increased demands are made upon transportation facilities for forwarding troops, munitions, and supplies more and more will production of food be necessary as near as possible to the point where the food is to be consumed.

5. That so far as can be foreseen, farm labor shortage will be more acute in 1918 than it was in 1917.

The committee recommends that the camps be conducted on a semimilitary basis, that training courses be provided for camp cooks and supervisors, and that a uniform practice in conducting camps be worked out embodying the features proved by experience to be best.

The *Maine plan* would probably need modification in some details to be workable in any other State, but it is of great interest in the present emergency. The following is quoted from a circular issued by the officials of the junior volunteers of Maine:

GENERAL INFORMATION.

Purpose.—The purpose of this movement is to discover, enlist, and train boys and young men to supply the extra demand for farm labor made necessary through the increased acreage propaganda recommended by the State and Federal Governments to provide for the war emergencies.

Enlistment.—Boys between the ages of 16 and 20, of good moral character, who can pass the physical examination and furnish satisfactory recommendations, may qualify as volunteers.

Dates of enlistment are on and after June 1, to and including October 31, unless otherwise released by the governor, on recommendation of the director general.

Application blanks may be secured of the principal of the local high school or academies. If not, write to headquarters. Enlistment for both boys and leaders will be on the same basis as that of the National Guard. The boys will be known as "Volunteers," and the leaders as "Commanders."

All desirable candidates whose applications have been duly filed at headquarters will receive orders to report at the mobilization camp for final examination and enlistment.

Leadership.—The boys will be sent out in squads to work in different sections, as opportunity may afford, under the direction of competent adult leaders, appointed by the director general, who will have full charge of the boys until they are returned to the mobilization camp, unless otherwise relieved by the director general. These leaders will be men of unquestioned Christian character and ability for leadership with boys, coupled with a practical knowledge of farm work.

Mobilization.—The camp will be mobilized June 1, at the Y. M. C. A. State Camp Farm, Winthrop Center. This can be reached from either Winthrop or Augusta by trolley.

Instruction and training in general farm work will be given at the camp by representatives of the University of Maine and other qualified leaders, before assignment to service is made.

The volunteers will be sent out in companies, under their commanding officer wherever and whenever needed.

Furloughs.—Brief furloughs will be granted to the volunteers in cases of emergency, by the governor, on recommendation of the director general.

Compensation.—Opportunity for service.

Wages, \$1 per each secular day from date of enlistment.

Subsistence (board and lodging).

Uniforms (hat, blouse, breeches, leggins, shoes, overalls, and frock).

Medical attendance.

Transportation.

School credits.—Full school credits will be allowed volunteers on both the fall and spring terms when engaged in service. The leaders will also tutor the boys and as far as possible keep them up with their regular school work.

Parents' approval.—It will be necessary for each boy to secure the consent and approval of either his parents or guardian.

General administration.—All matters pertaining to misunderstandings, adjustments of labor difficulties, change of location or assignment, discipline, enlistment, furloughs, rank, discharge, or other general questions shall be referred to the director general.

NATIONAL CHILD LABOR COMMITTEE PROPOSALS.

To send any children to farms without knowing the actual need for them or without regulation would be wasteful and a hindrance to the farmers, who do not want a horde of inexperienced laborers on their hands. Therefore:

1. Create and appoint a State committee of school officials to confer with the State agricultural department and organizations of farmers to find out whether there is a real need of school children on farms.

2. If the need exists, draft a set of regulations to meet the need and at the same time protect the children, such as these:

(a) Children 14 and over only, to be permitted to work on farms for others than their parents, and excused from school for this purpose from June 1 to October 1.

(b) Children 14 and over only, to be permitted to work more than eight hours a day, or more than six days a week.

(c) Children thus excused must have special work permits, issued by the committee of school officials or persons authorized by them showing that the child has been examined by a physician and is physically fit for work, permits to be issued only for farms known by the committee to be suitable places for the children to work.

3. The State committee of school officials should be responsible for the supervision of children at work on farms to see that regulations are enforced. Transportation, feeding, and housing should all be supervised.

As to housing, it is advisable that children sent to farms to work should not be housed with the farmers.

It has been suggested that the Boy Scouts, for instance, can establish camps in a given farm district under Scout Masters. Local authorities will be glad to provide transportation from camps to farms, and the boys can work in gangs, in one field one day, in another the next, and return to camp after work. In this way both work and living conditions will be supervised, and farmers will not have the responsibility and cost of housing them.

Similar camps may be established under playground directors, probation or school officers.

But be sure you know where the children live and how.

England is already wishing she had not used her children so recklessly at the beginning of the war. Let America learn by England's experience.

The Massachusetts plan differed in details but not in spirit.

MILITARY TRAINING IN HIGH SCHOOLS.

In the enthusiasm subsequent to the entrance of this country into the war there were many who believed that military drill should be made compulsory for all boys in high schools. Indeed, before April, 1917, several private secondary schools had offered military training to their older students who hoped soon to enter officers' reserve camps. A few public high schools, notably those of Boston, had for some years given a form of military drill to its boys; and after the declaration of war many schools, especially those in cities, introduced military training, usually optional. Among the cities may be mentioned Dallas, El Paso, and Waco, Tex.; Aurora, Elgin, Moline, and Chicago, Ill.; Stamford, Conn., Louisville, Ky., Bangor, Me., Baltimore, Md., Springfield, Ohio, Johnstown, Pa., Pueblo, Colo., Kansas City, Mo., Richmond, Va., Providence, R. I., and most of the schools of Arizona. In Wyoming an elaborate system was developed and approved by the legislature by the grant of financial aid; the legislature of Oregon provided for an elective course in military tactics and training in high schools, to be directed and supervised by the governor; and the legislature of New York, without the approval of the State department of education, passed a law requiring military training of all the older youth. In Massachusetts and New Jersey more deliberate action was taken. Commissions composed of representatives of the schools, of business, of industry, and of the Army, were appointed to consider the problem. In both cases they disapproved military training in high schools.

The arguments for and against military training in high schools are summarized in the two following letters, which are quoted from the report of the State superintendent of public instruction of Minnesota for 1917:

FAVORABLE TO MILITARY TRAINING.

Some one has well said that one of the great defects of American life to-day is slouchiness—slouchiness of physique, slouchiness in the appearance of our towns and villages, slouchiness in the application of mind and body to the tasks of the day, slouchiness in discipline and responsiveness to orders in cooperative efforts of all kinds. Compulsory military training enforces on a boy promptness in obeying orders, and he must apply himself to a given task until it is satisfactorily finished. His mental and physical being must always be at the best. All of these phases are being introduced and emphasized when military training is taught. It must be introduced in a spirit of civic service, and the cadets must be taught that this is a part of their training for citizenship.

Our experience with military training for several years in the Rochester High School leads me to say that it is one of the very best courses that we have offered. The discipline of the school is very much better, the boys seeing the value of self-control and decent restraints. The cadets are interested in civic problems and their responsibilities. Citizens of Rochester will testify to the value of this training for their boys. I have yet to hear a complaint on the cadet organization in the Rochester High School from the parents of the boys taking this work.

The cost of this work is very slight, as we have asked the boys to buy their own suits and caps. This year the cost has advanced from \$15 to about \$23. The boys feel it keenly, and we have allowed them to take the drill and rifle practice without the regular cadet uniform. Lieut. W. F. Wright, of the local Machine Gun Co., is the drill master and receives a slight remuneration.

Drill is offered twice a week and rifle practice by squads once a week. During the winter season indoor drill and rifle practice are given, and during the spring, summer, and fall, outdoor practice. Interest in the organization is so keen that prominent citizens, who are members of the local rifle club, offered to take squads of cadets out to the rifle range. The rifle range is owned by the Machine Gun Co., the Rifle Club, and the cadet organization.

State-wide military training in high schools has been a decided success in the State of Wyoming, where legislative aid is granted. At first there was a great deal of opposition, but it now has the hearty approval of all the citizens of the State. The State superintendent of instruction has this to say: "I take this opportunity to express my hearty endorsement of the cadet work which is being done in Wyoming. For some time I have been watching the influence which it has exerted upon the young men enrolled in the various schools, and I wish to say that I consider it most valuable training for our high-school boys. I am glad to see the movement growing in popularity."

Finally, I wish to say that here is an organization in which the physical welfare of practically every high-school boy can be cared for. Football takes care of about 15 or 20, basketball about 10 or 15, baseball about 12 or 13; but in drill, setting up exercises, and rifle practice, every high-school boy may compete. Where the cadet movement has been tried, it is a success. Austin, Mankato, St. James, and Stillwater, in this State, are very successful in their experiments. Those who have tried the experiment can speak from experience, others can only guess, and those who oppose the movement are mostly guessers and mothers who did not raise their sons to be soldiers but want them to be mollycoddles.¹

¹ Eupt. H. A. Johnson, Rochester Minn.

THE OPPOSING VIEW.

The world is suffering from a hysteria of fear. Fear has entered the courts of Europe and shaped the policies of kings. The nations at war to-day had but to look across their boundaries any night for the last 30 years to behold a horrid, grinning monster, ready to leap at their throats. They talked about "peril," until at last an emperor had himself pictured riding in the night of a black world-catastrophe, with uplifted sword, defying the "Yellow Peril." In these later days this fear has reached America. Congress appropriates hundreds of millions to banish fear, but it is not enough. Our schools must be enlisted in the desperate fight to lay this ghost of fear. And now this State will be asked, as others have been already, to introduce military drill into the curriculum of its public schools.

The purpose of this training is that our youth may be enabled to repel the attack of a foreign foe. And it is accepted by all, militarists included, that the prime qualification for a soldier, the necessity before everything else for the man who fights, is a sound, strong body. The advocates of military drill affirm that their system furnishes the best training for developing strength and endurance. If this were true, military drill might be justified; for a strong body is as essential to the arts of peace as to the arts of war. And may I interject that the demands of peace during the next 10 years will be a severer test upon American manhood than any war to come? But the claim is not true. And I call to witness those who know.

First, Dr. Sargent, veteran director of physical training at Harvard: "Military drill is not an adequate means for physical training. It is not only very limited in its activities, but actually harmful in its effects upon boys less than 18 or 20 years of age. It is apt to foster a bombastic spirit of 'tin-soldierism' and a false sense of patriotism which does not appreciate the seriousness of war nor the glories of the struggles of peace."

Dr. Herman Koehler, of West Point, in his 'Physical Training in the Service,' says: "The attributes, in order of importance, may be summed up as follows: (a) General health and bodily vigor; (b) muscular strength and endurance; (c) self-reliance; and (d) smartness, activity, and precision. It is upon the first of these—health and bodily vigor—that the development of all the other qualities so essential in a soldier are dependent, and for that reason the maintenance of robust health and the development of organic vigor should be considered the primary object of this training."

Sir William Aitkin, professor of pathology in the Army Medical School of England, says: "Boys given military training at 18 make soldiers who are less robust and efficient than men with whom this training was deferred a few years, remaining in civil life until after their bones, heart, and lungs were more matured and developed."

PHILADELPHIA, May 8, 1916.

To the Joint Committee on Higher Schools.

GENTLEMEN: The subcommittee on military training begs to report as follows:

The extension and development of the present method of physical training is strongly advised, supplemented by practical instruction in hygiene, prevention of disease, and immediate treatment of wounds and injuries.

I quote from the report of special commission on military education and reserve appointed by the Governor of Massachusetts, in June, 1915, consisting of a lawyer, a publisher, two college presidents, one manufacturer, one representative of union labor, and three retired generals, two paragraphs:

"The overwhelming weight of opinion from school teachers, military experts, officers of the Regular Army and the militia, and the general public is against military drill as defined in the first clause above. It is generally agreed that the military drill which a boy receives in school is of little or no advantage to him from the point of view of practical soldiering. As far as available evidence goes, drill in the schools has had no beneficial effect in promoting enlistments in the militia, except in a few

isolated localities. For various reasons it has seemed to create a dislike for soldiering. Military drill in the schools is objected to by many on the ground that boys of school age have not attained sufficient mental maturity to appreciate what war and fighting mean, and are therefore unable to digest the ideas which military drill presents to them in concrete form. It is worth noting that military drill as such is given in the schools of no countries of the world except Australia and Japan.

"The commission does not recommend military drill, but is opposed to it."

The judgment of the men who know of committees and commissions and of nations is against military drill in public schools. France and Germany have both tried it, and have abandoned it for a more rational system of physical training. Any person who will inspect the physical training given by skilled experts in our public schools will find now all that is desirable in military drill, much more that is desirable added, and whatever is undesirable eliminated. He will see youths, both boys and girls, in large groups, executing complicated movements with precision worthy of trained soldiers. He will hear the sharp command; he will see instant obedience to authority. He will be proud of these boys and girls, physically fit, ready to glorify their country in peace, and, if it must be, in honorable war.¹

The nature of the military training offered in our high schools has varied widely—from mere marching in formation to the study of tactics. Richmond, Va., has published its course of study in military training, which consists of five hours a week for each class. First year—drill, three hours; signaling and marksmanship, two hours. Second year—drill, three hours; company administration and organization and military hygiene, two hours. Third year—drill, three hours; map reading and field engineering, two hours. Fourth year—drill, three hours; tactics and leadership, two hours. This is a part of the Wyoming plan of military training, concerning which much has been published. The purposes of the military training, like its nature, have varied widely—from improvement in physical well-being to military preparedness and moral development. The last-mentioned purpose assumes a general transfer of training that has nowhere, especially in countries where such training of adults has been most firmly established, been proved or even largely claimed. The examination of the young men who entered the National Army has emphasized, as the schoolman has never been able to do, the need of serious and continued physical training of our boys and girls; and usually military drill in high schools has been justified as contributing to this end. The recent manuals on physical education issued by the States of New Jersey and New York are admirable outlines of work that should be enforced in all high schools.

THE FUTURE OF THE HIGH SCHOOL.

It is generally recognized that the high school is in the critical stage of its development; no other phase of public education is so often discussed and so little understood. Having attained during

¹Asst. Supt. W. F. Webster, Minneapolis, Minn.

the past generation a marvelous physical growth and a gratifying improvement in its internal administration, it remains now to be defined and directed purposefully and effectively toward ends consonant not only with elementary and higher education but also with the larger aims of national life. Before this can be satisfactorily done, the newer spirit of democracy and national ideals must be clearly formulated and accepted throughout the Nation as a basis for all national life. Then, to make opportunities equal for all the youth of our country, there must be extensive aid by the Federal Government to public high schools, which will thus be recognized as an effective instrument in training leaders in the upbuilding of national welfare. On the basis of definitely declared and accepted ideals of democracy, and with the aid of a Federal subsidy, professionally trained principals and teachers of the finest qualities must be secured to reform and redirect not merely the curricula and courses of study but also the social activities of the high schools. Then, and not till then, may we expect them to reach their highest efficiency as agencies in the development of the Nation.

CHAPTER VIII.

INSTRUCTION IN ART IN THE UNITED STATES.

By WALTER SARGENT,
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CONTENTS.—Introductory—Art instruction in elementary schools—Art instruction in high schools—Art instruction in universities—Art museums and art schools.

The term "art education" is used somewhat loosely in connection with a wide range of school activities. Any discussion of the subject must therefore define somewhat arbitrarily the aspects with which it will deal.

This chapter includes the following:

1. Drawing, painting, and constructive and decorative design, whether used to record facts of form and structure in connection with industrial and scientific work, or to interpret forms and appearances pictorially or decoratively.

2. The advancement of artistic appreciation, whether gained by technical practice or by acquaintance with good art through some approach other than that of actual production, or by a combination of these methods. In the discussion of the advancement of artistic appreciation without technical production, the whole field of fine and industrial art is included. In the discussion of technical work, only the graphic arts as just defined are taken into direct consideration.

The material here presented is based upon the replies to inquiries regarding recent changes in aims and methods of art instruction, sent to State commissioners of education, and to the superintendents of schools in the three largest cities of each State, to the art departments of State and other leading universities, and upon an examination of a wide range of courses of study and of reports of art associations and educational meetings where art was a subject of discussion. A survey of this material shows a number of significant changes, which may be broadly grouped as follows:

1. The changes due to the normal development to be expected along lines where progress has long been continuous. Prominent among these are—

(a) A clearer understanding, which has come through experiments and longer experience, regarding what art instruction should accomplish as a part of general education, and the consequent revision

and improvement of methods of teaching. These have been especially evident in elementary and secondary schools and in colleges.

(b) A better knowledge of the social and industrial values of advanced art training for those with special aptitude, and the consequent modification of advanced art education to meet these needs. These modifications are noticeable in the programs of vocational schools and professional art schools, of art departments in colleges, in the broader range of educational activities carried on by art museums, in the associations recently formed for bringing art instruction into closer relation with social and industrial needs, and in new art schools intimately related to community interests.

2. Changes due to the present abnormal conditions of war. Among these are—

(a) A revaluation of the effects of art in shaping public opinion and in stimulating patriotic activities, and in reenforcing those attitudes of mind which we include under the term "morale."

(b) A revision of methods of drawing in connection with constructive work, because of the shortcomings of methods which have been in fairly common use; shortcomings which attempts to train enlisted men in constructive work have made evident. These attempts have emphasized the fact that ability to read working drawings accurately and to make dimensioned sketches, mechanical or topographical, with facility, is not common, even among those who have had high-school courses in drawing. It is an ability which the present crisis imperatively demands.

(c) A realization of the probability that in the commercial revival which is certain to follow the war, and because of the consequent need of highly skilled designers in the industries, the United States must depend more than heretofore upon those trained in its own schools, and must therefore begin even among pupils of secondary school age to conserve and direct special talent when it is discovered.

These changes are considered in detail under the separate divisions which follow.

ART INSTRUCTION IN ELEMENTARY SCHOOLS.

Art instruction in elementary grades has been quite general throughout the country for some years. Recent changes have been mainly along the line of normal development. Among the important directions in which progress is apparent are the following:

The tendency emphasized above all others in the returns received from superintendents of schools and from supervisors of art instruction is in the direction of bringing art instruction into more direct and intimate connection with school and home and community interests. The specific points of contact most emphasized are the following:

1. More use of drawing to illustrate other school subjects. This indicates a tendency to go to the other school interests for themes for drawing, instead of selecting themes arbitrarily for the purpose of developing a logical but detached course in drawing. In this way the correlation with other subjects becomes the first business of the art supervisor, and is not left to chance.

2. An especially close correlation with the manual arts. This means that much of the drawing and design is directly concerned with problems in industrial work and in the household arts. In many places this correlation is being promoted in an administrative way by uniting the departments of drawing and of the industrial arts under one supervisor.

3. More definite attention to developing appreciation of good pictorial art and of excellent constructive and decorative design. The majority of returns indicate that the sort of appreciation desired is that which will increase the range and quality of one's enjoyment in his surroundings, and especially will enable one to exercise good taste in home planning and furnishing, in promoting community projects, and in producing material for the market.

These purposes are not new in elementary art instruction. Published courses have long stated them more or less definitely as aims, but an analysis of recently formulated courses shows an essential difference in method, namely, a tendency to abandon a detached course of instruction planned mainly from the point of view of logical progression in the subject in the hope that the principles and practice gained thereby will be carried over and put to use in fields where they are needed. This somewhat formal work is being displaced by courses in which principles and practice are concerned mainly with problems selected from the field of immediate needs. This procedure appeals to the instant interests of a far greater number of children, and its direct result is to make drawing a general rather than a special school subject.

The history of drawing in public education has been such as to create a tradition that it is a special subject in the sense that it is possible of attainment only for those who have special talent, and that it has value mainly for those who may later have occasion as artists to use it. This tradition has tended to take the vitality out of the instruction given by grade teachers because they felt that drawing was neither possible nor worth while for the majority. It has also tended to some extent at least, to concentrate the enthusiasm of the special teacher with art-school training upon the few pupils who displayed unusual artistic aptitudes.

The last two years have contributed considerably toward making drawing a general school subject as regards its availability and value for the majority of children. This contribution has been made

partly through psychological study of special talent and partly through results obtained by applying general pedagogical principles to the teaching of drawing. Observation shows that the mere sight of nature's appearances awakens in certain children a peculiar type of experience and of interest, one characteristic of which is a strong desire to represent graphically what they have seen. In the case of these children the simple presentation of objects arouses this peculiar interest, together with a corresponding desire to express it by reproducing the appearances in drawing or painting. They are the children who have what is termed "special talent." When analyzed, this talent appears to be essentially a special type of interest in appearances of things and not a special manual ability or skill. The skill in drawing which these children display seems to be a natural outgrowth of the practice which this peculiar interest in appearances and the consequent desire to draw them promotes.

This view is supported by the fact that if an interest of another sort, but equally strong can be awakened in connection with the appearance of objects, for example an interest in their construction, which can be expressed best by drawing, as in the frequent cases of children greatly interested in engines, bridges, boats, etc., the drawing will be equally good, although different in type.

Experiments indicate that if we can awaken an equal, although different, interest on the part of children without so-called "talent" for drawing, they will develop equal skill, provided the interest is of a sort that can be most adequately expressed by drawing. Frequently children who show under ordinary circumstances no indications of talent, when the appeal to their particular interest is found, equal or surpass in skill those who appeared at first to be gifted artistically. Elementary school courses in all subjects are appealing to interests many of which demand drawing of some sort for their expression and practical realization. In geography and history, shapes of countries, types of mountains, means of transportation and numberless other topics need for their description drawing as well as language. School and home gardens are planned by diagrams. It has become the common language of the school shop and of the household art department.

Drawing as a means of expression for this widening range of interests is rapidly supplanting the drawing of a few years ago, when frequently the only interest appealed to was that of representing appearances for their own sake. Lack of special talent in drawing, as an excuse for low grades in that subject, is coming to be regarded in the same light as is lack of special talent in mathematics and in language when elementary school attainments in those subjects are under consideration.

A survey of recent discussions regarding the purposes of drawing in elementary schools indicates that the familiar statement that drawing is a language is now being taken in its full significance. Educators are pointing out that any new medium of expression furnishes a fresh kind of experience with things studied, and starts a type of thinking that a medium of expression different in character does not stimulate. The kind of thinking exercised when a pupil describes a subject by drawing does not duplicate to any great degree that involved in description by writing. The first appears rather to supplement the second. Each lays hold of aspects which the other neglects and fails to grasp. The terms used in drawing are essentially different from those used in writing and describe things in a different way. Each has its own psychology and compels its own characteristic type of analysis and synthesis.

As an outcome of these discussions one finds that art instructors are stating with increasing clearness the function of drawing as an important and unique means of approach to subjects; a means of dealing with topics in a way which supplements that furnished by verbal language and consequently gives a kind of experience with them that is otherwise unobtainable.

The changed attitude regarding drawing and design may be broadly summarized in the following statements:

1. That the tendency is less toward trying to interest children in drawing as a subject, and more toward using drawing as an efficient and unique means of expressing and promoting whatever interests school and home and community life have awakened.
2. That instruction in design deals less with formal exercises, in arrangement, and more with problems directly and practically concerned with school and home surroundings and with industrial life. The methods of instruction are coming to include, in addition to practice in producing designs, much experience in choosing as one must choose when he makes actual purchases.

Although an examination of recent courses and of the reports of conferences on the subject of art instruction gives abundant evidence that courses are being reorganized upon the same basis as other subjects, and are being graded so that there is definite progress from year to year and that the expected results are within the attainment of the majority of children, and also that the psychology of drawing and of art appreciation is being investigated by educators, nevertheless such a survey of courses and of reports of conferences discovers little in the way of attempts to state what standards of attainment may reasonably be expected in each grade and at the end of elementary school work. Indeed, expressions suggestive of hostility toward attempts to establish tests and scales of measurement

of achievement in drawing are frequently evident. These objections appear to result from misunderstanding a desire to secure some system in presenting the language of art expression, as being a wish to mechanize the thought and feeling expressed thereby. Fortunately, however there is a growing recognition of the fact that systematic mastery of a means of expression means increased freedom in communicating thought and feeling.

Prof. Edward L. Thorndyke called attention to the desirability of some scale for estimating attainment in drawing, in an article published in the Teachers College Record in November, 1913, entitled "The Measurement of Achievement in Drawing." He says:

Each person uses a scale of his own. Consequently, although we give in verbal statements and on report cards many millions of measurements of achievement in drawing every year, almost no use is made or can be made of them. A child may learn that his drawings are, in his teacher's estimation, better than those of other children in the same class who get lower "marks," but he does not know how much better they are. He may be told that his drawings are better than those of last week, but not how much better they are. As to learning from all these millions of measurements how much better drawings are obtained from 100 minutes of training per week than from 50, or how much better drawings are obtained by one city's system of instruction than by another's, or how much better drawings are obtained in the same city now than were obtained a decade ago, it is impossible.

Prof. Thorndyke then explains a scale which he worked out, describes and illustrates some of its uses, recounts the principles of its derivation, and makes clear its limitations. Further careful work in the same field is being carried on by other investigators, and additional contributions will doubtless be available soon.

The effect of the war, which has greatly influenced industrial work in elementary schools, is also evident in art instruction. Many of the problems for design have included the making of posters for food conservation, war-savings and thrift stamps, liberty loans, gardening, Red Cross and Y. M. C. A. work, etc. Other design projects have included covers for scrapbooks for soldiers, designs and decorations for toys for refugee children, and the patterns and ornamentation of various objects to be sold for war funds.

ART INSTRUCTION IN HIGH SCHOOLS.

High-school courses of the past two years indicate some significant and a few radical changes. Two influences among others have been particularly strong in bringing about these developments. One is the widespread organization of junior high-schools, which has resulted in a closer articulation of elementary and secondary schools. The other is the rapid progress of vocational education.

The organization of junior high-schools has brought into prominence many psychological as well as administrative questions. Edu-

cators especially interested in these questions have contributed, among other things, important considerations regarding some of the differences in the attitude of high-school students toward school work as compared with that of elementary school children.

One difference appears to consist in greater need on the part of pupils for some practical or intellectual justification for the work undertaken. The fact that certain studies appear in the accepted curriculum no longer appeals to the majority of the pupils as being a sufficient reason for undertaking these studies with enthusiasm. In addition the significance of the course to them and to their prospects must be understood if it is to engage their whole-hearted endeavor. New social and vocational interests are awake and must be ministered to.

Another interest which influences art instruction directly and which appears to be much stronger in high-school pupils than in those of elementary school age is the interest in the theories and principles of the subjects of study and in the historical development of things and of events. Accompanying this interest is an increased capacity for developing some genuine appreciation of artistic styles and of the different possibilities of various mediums of expression.

The progress of vocational education is recognized in the recent tendencies of art instruction in high-schools as noted by school superintendents and by instructors in art. Almost without exception the changes reported are toward a more direct and concrete application of art. The following quotations, entirely typical of the expressions found in a wide range of returns, are merely statements in different terms of this tendency:

The primary purpose of our art is to relate it to the entire life of the children both in home and in their occupations.

An effort to adapt instruction to the requirements of local industries.

Tends more and more toward industrial work.

Vocational art courses, art related to printing, courses in home aesthetics.

Have started such work as art in window dressing with practical application in stores, * * * art in dress, * * * dress appropriate to occasions.

Collection and study of good illustrations of furniture.

Much emphasis recently given to having designs worked out in material.
* * * Advanced courses are highly differentiated with high technical standards demanded.

In addition to this concrete tendency, there is on the other hand an increasing recognition of what are commonly called the cultural values of art study, its importance as historical material, and its significance, in common with music and literature, as an embodiment of the aesthetic experiences of the race.

The following extracts from a report by Dr. James P. Haney, director of art in the high schools of New York City, put in clear terms some of these tendencies.

This training in what may be called "practical aesthetics" has thus become a subject of keen interest on the part of many who are engaged in the business of creating materials for home or personal adornment. * * * Both "the public" and "the trade" understand more clearly with every passing year the need of this training; the public that life itself may be made more pleasurable; the trade that its standards may be raised in every aspect wherein art touches industry. The milliner, the dressmaker, and jeweler are interested on the one hand; the furniture manufacturer, the wall-paper dealer, and the textile merchant on the other. Many additional trades are concerned. * * * Now, as never before, these merchants and dozens more are asking, "What are the schools doing to make their art teaching practical?" * * *

The older barriers which separated the school studio from the industrial art studio outside the school have been breached and in some cases quite torn down. Art teachers in numbers have visited "the trade" and have brought back a course of practical suggestions to the classroom. Counter visits have been paid by merchants and manufacturers to the schools, and many have sent their trade designers to see the school work and to give to the teachers and pupils the industrial point of view. Practical problems have been worked out in material, and not a few competitions have been instituted by trade representatives that pupils might see how immediately useful in business is the information gained in the school. * * *

Every one must patronize the industrial artist, for all must have chairs and tables, dishes to eat from, and clothes to wear, and emphasis has been placed on the professional nature of the work of the school that the student might be made keener to scrutinize the professional hand which he sees about him at every turn. * * *

Many thousands of pupils are thus reached every year and are encouraged to visit the museum frequently to enjoy not only the pictures and sculpture, but the splendid carvings, beautiful enamels, the glowing porcelains and the priceless tapestries. Thus they are given what may be called "museum habit." They are taught not only where to look but how to look and are given something at least of the satisfaction of "the knowing one," the connoisseur whose affection is drawn by insight into the beauties of the craft which are displayed in jeweled cup or damascened armor. This interpretation of the museum to the school pupil, this revelation of what pleasure may be had in this scrutiny is held to be one of the functions of the art department of the city school system. It can little profit a city to have within its borders priceless collections, if these for whom the collections are shown see its beauties as through a glass darkly. * * *

This training, it is manifest, is not to be given by talking about it, but rather by continually offering to the learner problems in which choice must be expressed in terms of immediate need. Shall one, for example, in designing a flower bowl, turn the curve thus, or shall it be so? The decision as to which line best expresses the quality of the clay and the purpose for which the bowl is shaped is the decision which makes for taste. Taste in other words is a discriminative judgment born of many opportunities for choice. Some grow in taste rapidly, some slowly, but the process is always the same. One must learn to choose and to choose by virtue of the knowledge of what makes for better line or color or pattern. Taste is thus not a thing of definite standards. It is rather an intellectual quality. It is a habit of mind which seeks always to compare the better with the poorer and which strives continually to sharpen its own perceptions that it may judge more truly. It has a critical function but a constructive one which aims not only to see that the thing is better but aims to know why it is better. * * *

The merchant who is a bad designer will seldom be cured by admonition. The only way to cure him is to catch him while he is still a lad at school. But granted, on the other hand, that such practical teaching can be given—and it surely can—it must be plain that there resides in the teaching of the schools enormous force to affect the art ideas of the public for the better. This force undoubtedly is at work. No one who knew the American home and its decorations as it stood in the early seventies and now sees the home of the persons of equal social standing will doubt for a moment that great progress has been made. It is a change which has taken place all over the country, but most significantly where the art teaching of the schools has been active. Something of this idea that everyone is an artist in his own right has dawned upon thousands of men and women. * * *

But with the development of that which we have called the modern art teaching there has been a great change in the attitude of the school toward talented pupils—that little group which we have called "the few." It has been plainly seen that it is to the advantage of the school to hold those gifted boys and girls within the character-shaping boundaries of its walls. On the other hand, it has been seen that it is to the pupils' interest to stay rather than to leave half trained in all that makes for general culture and to plunge at too early an age into the ceaseless grind of business life. For these reasons the modern high school seeks to retain the talented pupil through its entire course. Instead of fitting the pupil to the course, it now devises special courses to fit the pupil. It recognizes that talent is precious, and when it finds it, does all it can to cultivate the gifted and to school them to high technical experience.

Certain difficulties are evident in the organization of high-school courses in art, especially in the case of small schools.

1. There are seldom any accepted standards of attainment in art instruction in elementary schools which can serve as a dependable basis upon which high-school courses may be planned.

2. A large number of high-school instructors have been accustomed only to art school ways of teaching drawing and design. These studio methods are generally adapted only to those who possess special aptitudes for drawing. This difficulty is being remedied because cities and towns in increasing numbers are requiring that the instructor in art shall have some normal training, including general principles of education and practice teaching under skilled supervision.

3. Except in the larger high schools, where a number of classes exist, it is difficult to arrange a course which offers progress from year to year, because frequently pupils from each year in high school may register in a given class. For example, an introductory class in drawing may be made up of pupils from the first, second, third, and fourth year groups. Under these circumstances difficulty is found in relating art instruction to other school interests and to varying degrees of maturity with any sort of definiteness. This condition tends to encourage the treatment of art as a special subject. The increased amount and better organization of vocational and industrial courses is improving this situation rapidly and definitely.

4. In the past the amount of credit allowed in art toward graduation and for entrance to higher institutions was often small. Consequently, registration for art instruction was likely to be limited to those who had very strong natural desires in that direction and those who had leisure for extra courses. This hindrance is rapidly disappearing. High schools are tending to give the same credit toward graduation for art subjects as for any others in the curriculum. To a corresponding degree, higher institutions have become liberal in the number of units in the arts allowed for entrance requirements.

In addition to these obstacles, which are largely administrative in character, courses planned to realize the aesthetic values of what are commonly termed the fine arts encounter another difficulty which lies in the nature of the subject. In 1915 Dr. C. H. Judd pointed this out clearly. The following extracts are the first and the last paragraphs of his discussion:¹

The fine arts, like the manual and industrial arts, have stood apart from the conventional academic subjects and have been given only a half-hearted recognition in the organization of school programs. From one point of view this is difficult to understand, for civilized nations have always regarded training in music and drawing as highly desirable accomplishments. We in America have been subjected to criticism by foreign visitors and we have freely criticized ourselves for our meager cultivation of the fine arts in our schools. While thus recognizing the arts as desirable, we have found it a very difficult problem to make them available for school purposes. How can one formulate a course in these subjects? They seem to be highly individualistic and vague in their results. There seems to be so large an element of chance in the outcome that we turn by preference to those courses of instruction which seem to be more definite and capable of impersonal formulation. * * * Whatever the method of instruction, art teachers must give up the practice of indulging in rhapsodies over art and its value, and must learn to define the types of appreciation which they wish to cultivate. They must show that they know when they have produced one of these approved types of appreciation. Finally, they must by practical demonstration convince the world that there is no fundamental opposition between the habits of mind and action cultivated in the arts and those cultivated in the scientific courses given in the schools. The present-day conditions are a challenge to art teachers and to all of us. Vaguely we all believe in art; practically we are not able to bring it into the schools in any form which we regard as satisfactory for the training of students. To bring it forcibly into the course without heeding the objections raised will be unfortunate. To omit it altogether is to deprive the student of one important aspect of civilization. The challenge to deal with this situation intelligently is peremptory.

The much closer relation which has recently been established between art courses and industrial and vocational education has gone far toward defining the type of appreciation and of technical ability which art courses thus related aim to develop. This result has not only determined the aims and justified for both pupils and instructors

¹ From the *Psychology of High School Subjects*, pp. 345 and 364.

the place of these art courses which accompany industrial work, but it has also led to a scrutiny of the aims of courses not so related. In consequence, these courses, in revised form, have received new justification.

The revision of these so-called fine-arts courses has been mainly in the line of a better presentation of the unique historical material which the field of art possesses, of a development of appreciation of the fine arts as a source of æsthetic enjoyment, and of the discovery and conservation of special artistic talent as a social asset.

Under present conditions high-school art courses may be broadly classified as follows:

1. Courses in drawing and design which are organically related to industrial and constructive work, including household art.
2. General art courses, which correspond somewhat to traditional art-school courses and which appeal particularly to pupils with special art interests.
3. Courses consisting of illustrated lectures, readings, and class recitations which present a survey of art.

The character of these three types of courses is indicated more in detail as follows:

1. High-school courses in drawing and design are coming to be more and more closely correlated with industrial and constructive work. Formerly this correlation was expected to result from a presentation in the art classes of general principles of drawing and design and an application of these later to the specific problems of shopwork, printing, household art, etc.

The relation is rapidly becoming more organic. The problems of the drawing and design classes are now largely the actual current problems of the industrial and vocational classes. In many cases the pupils spend alternate periods in the shop and the art classroom, dealing with the same problems in both classes. Sometimes the industrial departments take over much of the art instruction dealing with their projects. Working drawing, appearance drawing, and design have become intimately related.

A common use of drawing closely related to home planning and interior decoration is illustrated by this extract from the course in art and industrial training of the Binghamton (N. Y.) schools:

TOPICS FOR DISCUSSION AND ILLUSTRATION.

1. Building site: Location, exposure, drainage, water supply, fertility of soil, etc.
2. Building materials: Wood, brick, cement, etc.
3. Freehand sketch of plan of home kitchen, for class discussion of conveniences and necessities in wall openings and furniture.
4. Study of mounted illustrations of plans of kitchen, pantry, and dining room, to scale.
5. Drawing to scale, with customary conventions, of kitchen, pantry, and dining room, showing plan and elevation.
6. Freehand or instrumental sketch showing the possible remodeling of

the home kitchen to secure greater convenience or better lighting and ventilation. 7. Study various styles of door and window openings, from the viewpoint of convenience, beauty, and expense. 8. Floor coverings: Material, color, and wood finish. 9. Wall finish: Paint, paper, and color scheme. 10. Necessary and convenient furniture for kitchen.

The present tendency to articulate the teaching of design with shopwork is described in this extract from the course of study of the West Hoboken (N. J.) schools:

We must deal with design, whether we will or not. Every hour calls for us to settle some problem in design, some arrangement of form, some disposition of lines and masses, some choice and disposition of colors. Man's whole life is a series of designs. The relation is wide, the laws are widespread.

Pure or abstract design is not a science. It has one decided lack, it fails to give the constructive view of design. There must first be a problem of construction, and second one of decoration wherein we consider balance, rhythm, harmony, etc.

The function of applied design is to add interest to construction. Therefore applied design is conditioned first by structure, second by use or purpose of the thing decorated, third by the convention required, fourth by the symbolic element that may be introduced, and fifth by the personality of the draftsman.

In this course of instruction we endeavor to plan the work so that the conditions set forth in the preceding paragraphs govern the subject matter.

The following recommendations regarding the general scope of high-school industrial drawing in connection with shopwork has received the approval of the faculty of the soldier training department of the University of Chicago, and also of that section of the committee of the high-school conference of the University of Illinois which has in charge the revision of high-school courses in drawing.

HIGH-SCHOOL INDUSTRIAL DRAWING AND DESIGN.

I. Freehand drawing of appearances to describe construction.

1. Sketches directly from objects to show the appearance in perspective.
2. Sketches for the purpose of experimenting with and perfecting ideas of construction and design.

To do this two things are required:

- (a) Ability to judge proportions and angles rapidly and with fair accuracy.
- (b) Mastery of a few basic constructive forms so that these can be drawn in any specified position or modification or combination from imagination.

Since a rectangular, a cylindrical, and a hemispherical solid are basic to most forms of construction, the drawing of these from imagination according to specifications should be thoroughly mastered.

Tests indicate that theories of perspective, including principles of convergence, and foreshortening are not the best way of introducing the study of these forms. The most rapid and effective progress appeared to depend upon developing the pupil's ability to judge as to whether the drawings appear geometrically consistent or distorted (that is, as to whether they look right or not), rather than upon the knowl-

edge of formulated principles of perspective. It should be noted that this method differs radically from the old-time teaching of geometrical type forms by principles of perspective.

- (c) Knowledge of an effective method of procedure in drawing constructed objects, i. e., what lines are the basis of the form and determine the length and direction of the others. For example, in a rectangular solid standing on a horizontal plane, to draw one vertical edge, preferably the nearest, determines the scale of the drawing. To draw one main edge extending to the right and one to the left, so as to show their apparent slants and lengths, determines the proportions and apparent position of the whole object. These are the key lines and by them are determined the direction and proportion of most of the other lines, even if the form is considerably complicated.

II. Drawing of plans and patterns to describe construction.

1. Freehand sketches of patterns and orthographic projections directly from objects to record constructive data.
2. Freehand sketches of patterns and orthographic projections for the purpose of experimenting with and perfecting ideas of construction and of design.

To do these requires two things:

- (a) Ability to read orthographic projections rapidly and to translate facts of appearance and structure into the shop conventions of working drawing, with complete dimensioning according to shop practices. In other words, given an actual piece of construction, to make sketches in orthographic projection which shall include all data necessary for constructing the object.

For all practical purposes it is necessary to understand projection only in the third angle. An introductory discussion of all four angles is generally confusing.

- (b) Ability to put one's own ideas of a piece of construction first into freehand working drawings with complete specifications, and then into accurate instrumental drawings.

Most copying of instrumental work should be eliminated. Only a very limited amount is valuable to give standards of technique.

Much detailed instrumental drawing should be avoided. Freehand working drawings and appearance sketching are the chief channels of constructive thinking. The finished instrumental drawings hold somewhat the same relation to these that the stenographer's copy does to the author's manuscript. Much instrumental drawing tends to substitute manual dexterity for constructive thinking.

- (c) Ability to sketch the appearance of an object from the working drawing. This is particularly valuable in enabling pupils completely to visualize and understand structures when only the working drawing is given. It requires much of the same sort of constructive thinking that is employed when objects are actually constructed from working drawings.

In both appearance sketching and orthographic drawing, speed as well as accuracy should be cultivated.

III. Constructive and decorative design.

1. Choice of materials and processes best suited to meet the specifications.
2. Choice of styles of construction and decoration most appropriate to the piece of work in hand.

These require:

- (a) Acquaintance with a reasonable range of materials and processes, and some knowledge of the history of industries more or less closely related to the immediate project. This calls for class discussions, visits to industrial plants or other places where constructive work of the sort under consideration is going on, and assigned reading planned to open up an industrial and historical outlook.
- (b) Study of artistic styles of construction and decoration and the adaptation of these to the problem in hand. In any particular instance, as for example in furniture, this involves some study of the history and development of styles and a knowledge from books and museums, of the best that the past has produced and also a practical acquaintance with modern products and current fashions as displayed in trade literature and advertisements and in stores.
- (c) Supplementary practice in making good space arrangements and in drawing with facility a few typical curves; for example, arcs of circles, ellipses, and spirals of varying degrees of curvature.

Pupils should be trained to self-reliance in analyzing a problem so as to outline effective methods of going to work, and to decide along what lines investigation or reference material will be helpful.

2. General art courses. These courses are usually planned to train ability in representation along two lines. One of these is descriptive drawing, to enable pupils to meet readily the ordinary demands for illustration in connection with any school or home interest not reached by drawing in connection with the industrial arts. Sketches and drawings in connection with history, geography, literature, and the natural sciences are examples of this sort of drawing.

The use of drawing as a means of illustration of other high-school subjects has recently received careful attention. It has been found that pupils can be taught methods of procedure in illustrating a theme, which will make their drawing a genuine piece of study in selecting the particular aspects essential to the points to be described, in choosing the medium, hard or soft pencil, pen and ink, water color, or colored crayon, or whatever other medium is best fitted to give the characteristic effect, in consulting sources of reference mate-

rial, and in gradually elaborating sketches which are at first usually crude and inaccurate, but which are gradually perfected through many experiments and the accumulation of skill and of data.

By working up pictorial themes in this way, pupils gain by experience some appreciation of the manner in which pictures develop. They learn that a work of art, however spontaneous in appearance, is usually the culmination of a long series of sketches, observations, and experiments. This experience contributes to the understanding of art, something comparable to what the production of themes in English is expected to add to one's appreciation of literary methods.

It has been shown that certain methods of drawing may promote keen observation and analysis, while other methods may actually hinder these mental processes. In a study of drawing in relation to its use in science laboratories, Prof. F. C. Ayer, of the University of the State of Washington, says:¹

Representative drawing does not insure a consideration of the scientific aspects, or an analytical study of an object. The preconceived purpose of reproducing a visual copy narrows the scope of observation, and the attention, at best, is directed to items of form and color. There is nothing to call up associations which have to do with scientific ends. The attention is, in fact, kept away from the associations that have to do with science as such. Even in the province of form, sustained attention is not necessary. The pupil's drawing is always subject to direct comparison with the object at hand, so that extended study and reflection over its proportions are not necessary. It is a waste of time for the interests of scientific thinking to require pupils to spend extended periods of time at representative drawing. In fact, it is worse than a waste of time, for it encourages bad habits of analytical study, which are opposed to interests of scientific thinking and constructive research. It is no wonder that so few of our picture-laden notebooks give evidence of scientific grasp or initiative. The excessive use of representative drawing is a serious pedagogical formalism which produces copyists instead of scientists and which creates dis-taste instead of enthusiasm for science.

After analyzing descriptive drawing in a similar fashion, Prof. Ayer says of analytical drawing:

The preconceived purpose of analytical drawing supplies the direction of attention which is lacking in spontaneous description. The attention is directed to the particular characteristics of the object which are of immediate scientific concern. The successful type, schematic, or diagrammatic drawing can not be made without analytical study. The student who attempts to make a diagrammatic drawing * * * has before him a definite problem in analysis which necessitates sustained mental effort to the end of the process of representation.

A second purpose of these general art courses is to meet the need of pupils with special art interests. This group of pupils includes those to whom the practice of art is a continual source of pleasure of a high sort. They may never make art a profession, but it will

¹ *The Psychology of Drawing*, F. C. Ayer, pp. 163-165.

always be to them a means of discovering new interests and enjoyments. It includes also those talented few who will make art in some form their life work. For these pupils the courses are vocational in character and help to discover and guide their ability into the lines for which they are best adapted. These are the pupils who become industrial designers, painters, sculptors, illustrators, architects, etc.

3. The courses in the history and appreciation of art. Courses of this sort are becoming fairly common in high schools. They give acquaintance with the salient characteristics of styles of architecture, painting, sculpture, and industrial design, of the chief historic periods of art. They also bring to the attention of pupils the more important masterpieces of these periods. In such general surveys it is of course impossible to make an exhaustive study of any one topic. Nevertheless, the general features of the arts of different times which express most intimately the life and artistic ideals of the peoples can be shown. The pupils become acquainted with many of the greatest masterpieces in a way which gives new meanings to history, literature, and current events. Modern art gains added significance when viewed in the light of a knowledge of past art, and modern life is interpreted from another point of view when the arts of the present are recognized as being its inevitable expression.

The effect of war conditions upon high-school art has been evident, especially in its influence upon the subjects chosen for design. For instance, war posters have been produced all over the country. Another and more general effect has been the quality of directness and concentration that has come into work connected with the war. There is in it all an element of emergency which tends to eliminate steps of doubtful value and to produce desired effects with the greatest economy of time and means. For example, in the drawing connected with constructive work in classes of enlisted men, it has been found possible to give in a much shorter time than has previously been considered necessary, a working knowledge of the subject. A considerable part of the teaching in these classes is being done by high-school instructors, and the facts brought to light will inevitably affect their regular teaching. The Instruction Manuals issued by the War Department committee on education and special training contain many stimulating suggestions which will doubtless influence all the teaching of the instructors who use them. The following sentences from Instruction Manual No. 1 indicate the spirit of directness which dominates them:

Methods of instruction must be used which in the time available will best train men to do these jobs. * * *

In order to provide for the development of originality, initiative, and real thinking power and also to prevent a rule-of-thumb method, the teaching should

be almost entirely through jobs, questions, problems, and guided discussion about the work * * *

The accomplishment of a job is both the end to be attained and the means for instruction.

Another incidental effect of the war upon high-school instruction has been the widespread discussion of art values that has been occasioned by the destruction of so much of fine art that can not be replaced.

ART INSTRUCTION IN UNIVERSITIES.

Courses in art instruction in colleges and universities may be broadly classified as follows:

- (1) Courses in history of art.
- (2) Courses involving studio work related as laboratory work to academic courses, and dependent for credit upon association with these courses.
- (3) Studio work credited independently.

The trend of recent development in these groups of courses has been as follows:

1. Courses in history of art. Historical and archaeological researches have steadily increased the range and value of the material for these courses, especially in the fields of Egyptian, Cretan, Chinese, and primitive American art. Very large additions to the number of original examples of art available for study in this country have been made during the past 10 years. There is pretty general recognition now of the fact that art supplements literary documents in a special way, because it not only furnishes material in additional quantity, but its records are peculiarly different in kind. The arts of form with their vocabulary of visible shapes and colors can embody and preserve certain significant human interests which literature, from the nature of the indirect terms which it uses, can not express in quite the same way. These records of art are intimate and illuminating in a unique sense, because in many cases the student has before him the actual forms and surfaces which the artists and craftsmen produced. For this reason original art material is peculiarly confidential in transmitting, in addition to the actual subject matter, an element akin to what inflections and gesture add to words.

In addition to a wider range of historical material, the courses offered show an increase in the time devoted to modern art. The historical value of the records which art has left has always been recognized. The fact that the art of to-day is an equally illuminating factor in interpreting certain important aspects of the present has not been as generally evident. Moreover, the aesthetic standards of historic art have been comparatively well established, so that in-

structors can feel fairly safe in expressing their appreciation without hesitation. On the other hand, the higher type of critical judgment and æsthetic appreciation required to discern the tendencies toward significant expression and the germs of future perfection in the art of to-day have frequently made instructors diffident about dealing with this complex subject. An increased willingness to attempt it is, however, observable.

The following comments on the study of modern art are extracts from a paper by Prof. George B. Zug, of Dartmouth College:

A professor of Greek once said to me that he thought most people are really interested only in contemporary literature. I am inclined to think that with most people an interest in art begins with an interest in contemporary art. Accordingly, in some of my smaller exhibitions I have interested the boys in the art of Daumier, by means of drawings of Boardman Robinson. From Daumier they were easily led to Delacroix, and the latter prepared for a study of Michael Angelo. In the same way, drawings of the cartoonist Cesare have been the means of opening up the subject of pictorial satire, and this has led to Daumier, to Goya, and to Hogarth.

Students are interested in the mechanics of art. They enjoy seeing the tools and studying the processes used in the making of etchings, engravings, lithographs, and other prints. Colleges could attract more students to the subject of art by means of exhibitions of the materials and tools and stages in production of various kinds of prints, such as those in the New York Public Library on "How Etchings Are Made," "How Lithographs Are Made," "How Mezzotints Are Made," "The Making of a Wood Engraving," or "The Making of a Japanese Wood Block Print." Few professors would want all of these exhibitions, and perhaps none of us could secure material and prints for such complete displays as Mr. Weltenkampf has arranged.

But modest exhibitions on one or two of these lines would arouse a new interest among the students and would cost a comparatively small sum. At least one such exhibition should be part of a permanent collection of every college art department.

Regarding an exhibition of paintings, etchings, and illustrations, he says:

The latter were chosen not in order to represent any special illustrators, but to present selected examples of high quality of work in black and white, of oil in full color, water color, charcoal, pen and ink, pencil, and etching. Considerable interest was aroused in the class by assigning a paper which should compare and contrast the use of illustration in Harper's, Scribner's, and the Century, and the use of illustration in the cheaper magazines, such as the Cosmopolitan and the Metropolitan. The best of the essays on this subject, which showed decided originality, was entitled "The Big Three and the Proletariat." The advantage of this theme was that it lent a vital interest to the subject in that it had to do with the interpretation of contemporary life and especially that the work was based on the observation of originals and of the relation of their reproductions to the text. It was a subject, therefore, which could not be cribbed from books or articles.

Some of the best essays by undergraduates were published in the Boston Transcript and the Springfield Republican. The chief aim of a course in fine arts is not to furnish copy for metropolitan newspapers. It is to enhance the

appreciation of art. The point is not only that these undergraduate essays were good enough to be accepted by newspaper editors, but also that they were the result of personal appreciation, of first-hand observation.

In regard to the uses to which college exhibitions are turned, I wish to speak first of what the instructor can give the students by means of lectures, personal explanations, and gallery tours; and second, what the student can himself gain from such exhibitions.

The teacher has an opportunity to show such qualities and characteristics as do not appear adequately in any reproduction. For painting he can explain and actually show such things as tone, brushwork, harmony of color, and other qualities for different periods, and different groups within the same period. For instance, the handling of color and tone of impressionist pictures, of tonalist pictures, and post-impressionist pictures. For sculpture, of course, there are qualities of color, modeling, and patina which can be appreciated only in originals.

The direct appeal of originals is one explanation of the success of well-selected art shows among undergraduates. Moreover, exhibitions make the student body feel as they never have the importance of the study of fine arts. The feeling of proprietorship of personal interest is encouraged by having the undergraduates perform actual work, which brings its own reward in experience and appreciation. Students get valuable experience in the kind of manual labor done in museums; they unpack, hang, and repack paintings and sculpture; they make pedestals for sculpture, design labels and posters; they gain some knowledge of the problems of framing, hanging, and installation. A few also learn something of the business side of exhibitions, where and how to borrow pictures, selection of works of art for exhibition purposes, and matters of insurance.

Undergraduate correspondents have reported the exhibitions for city papers and for college publications. They have also shown competitive interest in writing essays for small money prizes. But perhaps one of the most happy results of the exhibitions has been their use by other departments. The professors of psychology and of English composition have required themes based on direct observation of the originals. Accordingly, over 500 students in three departments had required exercises based on the works of art in one exhibition.

2. Courses involving actual practice in drawing, painting, modeling, and designing and directly related, as laboratory work to academic courses. The character of these courses is naturally determined by the particular departments to which they minister. Prominent among the departments under whose auspices courses of this type are organized are those of history of art, education, architecture, and engineering.

The following quotations from a paper by Miss Edith R. Abbott, of the Metropolitan Art Museum of New York, indicate the character of many of these courses, organized in connection with courses in history of art:

In discussing this question, I have assumed that the term nontechnical laboratory work may properly be applied to laboratory drawing in which the object has been to develop the power of observation, not to achieve technical proficiency. Prof. Moore, of Mount Holyoke, says, "The term 'laboratory work,' borrowed from the sciences, is not a misnomer here. In science the laboratory forms the basis of theory; facts are observed, and by inductive and deductive

reasoning general principles are from them affirmed. In a study of historical art, too, laboratory work is used as a method of close analysis. Such work should not merely an accompaniment, but an organic part of the study of the history of art. Our purpose in its use is to enable the student to devote his attention for a time to one or another feature of a picture; * * * the student tries, by drawing or modeling, to copy or suggest these points, and in so trying he is obliged to analyze them with a peculiar concentration that he would hardly attain by any other method." * * *

The study of this form of expression, I believe, should not differ essentially from that of music or literature. The work itself must speak directly to the observer without any intermediary. The art student should be encouraged to make his own investigations and to draw his independent conclusions from analysis of the masterpiece itself. He may examine the structure of the picture in the same way that he would examine the structure of a symphony; he may look for the idioms of the painter or draftsman and learn to recognize them as he would recognize the terms of speech which characterize the style of a great writer.

In any such analysis, I believe the use of drawing to be invaluable. With the student and beginner, drawing has the important advantage of holding the attention focused upon the object for an appreciable time.

Let us consider the advantage of laboratory drawing in the study of composition. Compositions might be called the study of the interrelation of the parts. Baldwin Brown says, "The temptation to consider the parts in themselves rather than the effect of the parts in their relation to the whole is to most people irresistible." The untrained eye finds the plan of composition difficult to decipher, and yet the artist has based his arrangement upon a carefully constructed scheme. Mr. Cox thought it worth while in his analysis of Veronese to draw a diagram in order to demonstrate the severe laws of balance upon which Veronese relied for his effects. It seems beyond question that the picture has a greater interest when this fundamental structure is understood, since it gives the clue to the whole complex scheme.

A similar analysis may be made a class exercise, the students being required to sketch from lantern slides the structure lines of simple compositions. A time limit of 5 or 10 minutes may be set, or the student may be left in uncertainty when the light will be extinguished. By this means they learn to think logically and to build up the "anatomy" of the picture in an organic fashion. Whatever may be the results on paper, the exercise necessitates concentration upon structure and upon logical development. College teachers of English have told me that the clear analysis shown in these drawings was exactly what they were trying to get in their work in English composition. Laboratory drawing holds the attention concentrated upon form rather than upon any extraneous interest or associated idea. It facilitates the understanding of compositional problems with all the delicate adjustment of forms to space which they involve. A more intimate acquaintance is gained with the expressive language of art, and the foundation is laid for the appreciation of "quality," so that in the final analysis one should be able not only to distinguish the line of this or that painter, but also *la ligne vivante* which characterizes great art. Laboratory work is essentially a means to an end. For the student with artistic ability it can never become a substitute for real studio practice. But once initiated into this new world in which the senses play so large a part, the student experiences keen enjoyment.

3. Studio courses not planned primarily as laboratory work for academic courses.

There is an evident tendency to credit work in art which is more or less independent of an organic relation to academic courses, but which is nevertheless considered as an appropriate part of a major in art. In some cases these courses are carried on in an accredited art school. The affiliation between Brown University and the Rhode Island School of Design is an instance of this type of arrangement. Many colleges and universities have their own department of fine art. The steadily increasing amount of recognition accorded to well-organized studio courses in art as appropriate for academic credit is partly the result of a realization that art expression is more than a matter of manual dexterity in making a record of what one sees. It involves in addition, the translation of one's impressions into terms of expression which have been slowly evolved by the race, and which demand careful analysis and selection, and the knowledge of a body of principles and recorded experience. In the same sense that the test of excellence of themes in English is not their exactness as dictographic records of actual conversations nor as literal statistics of observations, so the test of college art work is not its correctness as a record of forms and colors, but its reconstruction of the raw material of visual sensation into artistic expression.

The recent steady increase in the number and size of departments of fine art in universities is destined to exercise an important influence upon American art in two directions; namely, by giving to the future citizens who will be the patrons of art and the promoters of the standards of civic beauty an early acquaintance with artistic interests and ideals of excellence, and also by offering to those who later will be professional artists an opportunity to continue through college the contact with art which in many cases was begun in high school.

Notwithstanding the high degree of skill in handling materials which drawing, painting, modeling, and designing involve, they are in their higher forms allied to the arts of expression more closely than to the arts of construction. In universities where art may be selected as a major subject, the student who plans to use art as his form of expression has the same opportunity as the student who intends to enter the profession of literature, to begin his work under conditions which will give him a broad intellectual background and stimulating contact with other vigorous interests.

The artistically gifted student in a college or university which has no art department generally finds, early in his course, that he must choose, in a manner that the student who plans to make science or literature his profession is not called upon to do, between a college course and a highly specialized art course. Too early technical facility, unaccompanied by constantly enlarging intellectual outlook

is as bad for the art student as too late a knowledge of the use of his means of expression.

The organization of college art courses is steadily improving. The work of the College Art Association of America is contributing effectively to this end.

ART MUSEUMS AND ART SCHOOLS.

Art museums have always been a most important factor in art education in America, and their influence is extending rapidly. This development is due in part to the increase in number of museums and in the size and quality of their collections, and in part to improved means of making their collections available. Most modern museums have established close relations with the communities in which they exist, and have put forth every effort to make their collections of use as a stimulus and guide to the art student and industrial worker and as a means of artistic pleasure and inspiration to the general public.

The older museums have existed long enough to be able to weed out much ordinary, but space-filling and mind-confusing, material. The newer museums learned by the experience of older institutions to protect themselves tactfully from mediocre but generously offered material, so that a satisfactorily large proportion of the works exhibited in the permanent collections of the museums of to-day have a genuine artistic significance.

Where means are limited, it is generally considered more important, in extending the list of permanent acquisitions, to have a small collection of a high degree of excellence than one which is large but only fairly good. It has become customary to regard a sum of money as more wisely expended in the purchase of one or two excellent examples of a given style or period of art than in procuring many ordinary illustrations of a wider range of styles. Photographs, and in some cases casts, are generally regarded as better substitutes for unobtainable fine things than original productions of indifferent merit. In consequence of this policy, the number of commonplace productions on permanent exhibition in American museums is relatively small.

Besides the regular displays of collections owned by the institution, nearly every museum has a succession of exhibitions of works of special interest, including current productions of pictorial and industrial art. Societies now exist for the promotion of American art, and their patronage in the form of prizes and purchases is an added influence in bringing to these exhibitions much of the best in modern American painting, sculpture, and design. While the collections accumulated from current exhibitions by these associations doubtless contain many things that will not stand the test of time, nevertheless

after a hundred years the really excellent material they contain promises more than to justify the policy, without taking into account the encouragement that has been given to American art during that time.

Besides making art productions of the past and present available, museums are organizing further educational activities with increasing effectiveness. In the galleries, docents and guides are available; literature, lantern slides, photographs, and color prints of good quality are provided; and lecture courses and classes are organized. Many museums have their collections of lantern slides selected and arranged so as to be of use in the community, especially in the schools. Carefully prepared lectures in manuscript form, together with appropriate slides, are frequently available for the use of schools. A few museums have collections of slides which, for a small rental fee to cover packing, will be sent to various parts of the country. The Metropolitan Museum of New York and the Art Institute of Chicago are notable among the institutions which offer this wide opportunity. The bulletins published periodically by many museums have become important art documents. By them the acquisitions and opportunities of these institutions are made known to the public.

The educational activities of museums and special art schools differ considerably, because each is experimenting with methods of meeting the needs of its locality. Reference can be made here to only a few, but the following are fairly typical of the various lines of effort.

Some of the lectures and classes announced in the bulletin of the Metropolitan Museum of Art in New York City, September, 1917, are the following:

For the public, Sunday afternoon lectures, illustrated and followed by visits to the galleries through the winter season.

Story hours for children and adults, illustrated and followed by visits to the galleries.

Artistic problems in Greek sculpture; five illustrated lectures.

For students of sculpture and painting in the art schools of New York. Four informal talks by painters and sculptors, with illustrations.

For teachers in the public schools of New York City. Gallery talks by the museum instructors.

For elementary and high school pupils. Four lectures in cooperation with the American Museum of Natural History. Textile industries of the United States. The garment makers of primitive times. Historic fabrics and costumes.

For sales people, buyers, and designers, three seminars.

For the deaf. Four illustrated lectures for those who can read the lips.

For the blind. Three talks for children, illustrated with objects from the collection which may be handled.

The Art Museum of Worcester, Mass., has set an admirable example in the activities of its children's department, the informal work in drawing, the Saturday story hour, and the gallery visiting.

Inevitably, the most important results of this work can not be measured in figures; they are observed by those who know the children as individuals, in the increased capacity for spontaneous enjoyment of beauty wherever seen, and the deeper interest in the museum, leading even to a certain sense of part ownership in the collections which, through intimate association, have come to mean much to these "younger citizens."

A large number of museums carry on systematic work in direct connection with the public schools and offer to teachers and pupils free admission to the galleries. The plans followed by the Museum of Fine Arts in Boston, the John Herron Art Institute in Indianapolis, the Carnegie Institute at Pittsburgh, and the Cincinnati Museum Association are typical of these activities.

The Museum of Fine Arts in Boston, among numerous other opportunities which it furnishes, has established in another section of the city a Children's Art Center. Here children may see loan exhibitions and be helped in the study of them and guided in their own efforts to draw.

Some 18,000 persons annually take advantage of the opportunity for free admission offered to school children and teachers by the John Herron Art Institute, of Indianapolis. It maintains a series of illustrated talks for grade-school children on popular subjects closely allied to art study. For high-school students a two-year lecture course is given on the history of art (one term each covering painting, architecture, sculpture, and the decorative arts), a full high-school credit being awarded to each student attending through the two years. A course in "museum study," planned to develop a fuller knowledge of museum material and a better understanding of how to make use of it, is a required part of the Indianapolis Normal School curriculum. In addition to these regular courses, all given at the museum, numerous classes come for special study or for a general museum visit, and frequent lectures are given in the various school buildings on the practical application of art in the home, the city, the community, and along similar directly helpful lines. In the art school which it maintains for professional training in drawing, painting, and the decorative arts, classes are conducted for teachers at special low prices and free classes for elementary and high-school pupils. In addition it offers scholarships for advanced work in art to pupils who show special ability. Recently, the free scholarship has been extended to cover the whole State of Indiana and a scholarship offered for each of the 92 counties in the State.

The Cincinnati Museum announced its plan in its report for 1909 as follows:

The question of education on a large scale—that is, of bringing the general public into intelligent and agreeable acquaintance with objects of art—is a matter which is occupying the attention of every museum at the present time. It is being variously dealt with. There is, of course, no difficulty in answering the needs of an individual or of a small group who come with a definite question or a common want. It is a pleasant and profitable task, for example, to talk over the Greek sculptures with a group of children who know their mythology. But it is doubtful whether the needs of large visiting classes of school children can ever be adequately met by instruction inside a museum. Certainly to attempt locally the systematic instruction of great numbers would be an impossible tax on a small and busy staff * * *. There are times when the request for guidance must be reluctantly refused. Volunteer service of the right sort would be a great boon and would hardly run the risk of becoming stereotyped, a real danger to any employing the function too frequently. By far the best results, however, are to be gained by the school-teacher who possesses sufficient knowledge to use the collections. She can reinforce her own work by drawing on an inexhaustible fund for illustration, and by reason of her knowledge of the child's degree of preparation she need waste nothing. If she possess, in addition, a love of beauty, either native or acquired, the conditions for success could hardly be improved upon.

The museum, then, is putting its main strength along this line into its work for teachers.

Another not uncommon affiliation is illustrated by the opportunity offered at Cincinnati, where high-school students may elect an art course which is arranged to allow five afternoons of work each week in the museum academy. Each afternoon's program includes three hours of drawing and painting. Instruction in the history of art is given to these students at the museum. The museum circulates through the schools certain sets of lantern slides with a synopsis. The subjects for 1918 are: "A Review of the Museum," "The History of Painting with Special Reference to the Characteristics of the Great Periods," "Metal Work," "Design as Studied and Practiced To-day." A lecturer from the museum is sent to the schools occasionally.

The way in which the Carnegie Institute comes into touch with the school children is described as follows:

The problem presented to us by visits to our galleries of groups of children from the public schools, and the way in which we have undertaken to solve it, may be briefly stated.

Through the interested cooperation of the superintendent of schools in Pittsburgh, and the director of art instruction, and the exceptional liberality of the board of education, the students of the entire eighth grade of the public schools, numbering 5,000, and ranging in age from about 14 to 18 years, come three times during the school year, with their teachers, as part of their regular work, to visit the halls and galleries of the department of fine arts at Carnegie Institute. Each visit is limited in time to an hour and a half, and the three subjects, painting, architecture, and sculpture, are studied, but each period is devoted to the study of one subject and of only a few works of art. These works are used for the purpose of illustrating some of the fundamental qualities defined.

As a result of many years of observation the problem presents itself to me in this way. We have, on the one side, groups of interested and intelligent children, eager to see and hear and understand. They come to us from 5,000 homes scattered throughout the entire city, and the majority of them have had no opportunity to learn anything about art, or even to see works of art. They have had nothing beyond the elemental art training offered by the public schools, and their sole means of observation has been practically limited to illustrations published in books and magazines telling stories or illustrating incidents. This side of art is, of course, so obvious that it may be readily understood by a child.

On the other side of the problem, we have the entire realm of art with which to deal, in three sessions of an hour and a half each; the history of art, of painting, of architecture and sculpture; the wide field of biography, of painters, of architects and sculptors; the technical side of art, the peculiar or special methods adopted, especially by painters, in the production of their work; and the various elements or qualities which enter into a work of art. The problem might be approached from any of these angles.

It will be seen at once how futile it would be to attempt to give the young people any idea of the history of the art of painting in the space of an hour and a half. It might be possible to deal briefly with the life of a single artist within the time, but the impossibility of dealing adequately with the wide field of biography within the hour and a half is apparent. And while the technique of art is an interesting field of inquiry and study, the peculiar manner of doing a thing is unimportant. Supreme examples of art have been produced by various technical methods. Technical methods are of little more importance than the handwriting of the author. Moreover, these students do not come seeking technical knowledge. They simply want to know why this or that work is good, to the end that they may better understand and enjoy art. The folly of attempting to teach these young people the history, biography, or technique of any art in an hour and a half is evident.

Therefore, it will be readily seen that if we are to give these students anything worth bringing them to the Institute for, we must select for them with discriminating judgment and concentrate their attention upon some important quality or qualities of the subject. Our chief purpose, then, is to give the student a *point of view* from which to examine and study, not one work of art, but all works of art.

The scholarship plan of the Cleveland School of Art illustrates some of the types of scholarships which art schools offer to talented public-school pupils. This school offers working scholarships and a few money scholarships. Last year the "Mutual service fund" was inaugurated. This is made up at present of eight purses of \$350 each. A talented pupil can have the benefit of one of these purses on condition that as soon as his earnings begin, the money be returned without interest, in installments to be paid either by the individual or by his employer—a certain percentage of his earnings monthly—until the whole is returned for another to use. The purses are given by individuals or organizations who come into personal touch with the beneficiary. The pupils whose abilities are recognized by the award of these scholarships are usually discovered in the high schools. Application is made through some special teacher of drawing who knows the facts about the pupil and his work.

The Cleveland Museum, in addition to its regular gallery displays, has exhibitions of selected works of art in a place of honor and under special illumination, each for two weeks only. Illustrated leaflets are issued interpreting these selected works and giving references to helpful literature about them and the artists who produced them.

In connection with the difficult matter of appropriate gallery talks a much better understanding is evident regarding the ways in which genuinely artistic appreciation is promoted. Some fundamental considerations on this complex problem are set forth with admirable clearness in the bulletin of the Art Institute of Chicago for February, 1918, from which the following paragraphs are extracts:

There is no form of art lecture capable of greater value to the interested public than that delivered in the presence of the works under discussion. Here qualities are seen and pointed out rather than described, and here the emphasis can be laid on a statement of the principle governing the manipulation of those qualities—the essential processes of art.

And yet there is no situation in which the lecturer can more easily be tempted from the straight and narrow path of scientific truth than in the gallery talk where the acquiescent pictures seem so ready to corroborate any word he may utter. The exercise of individual taste and the play of individual fancy have a right to play their part in the appreciation of works of art, and something very like these often stimulates the amateur critic into strange vehemence of statement—either of denunciation or of praise—in channels of purely personal thought whose value for his audience is certainly nothing and may be less.

Now this leads to the single deadly sin of the picture talker—the creation of prejudice. * * * It is precisely the function of the gallery talker to help us to find the artist's angle of vision. The greatest gift he can offer us is to make us sympathetic with the conceptions which are new to us. His best means of accomplishing this is to help us to rid ourselves of the films of prejudice through which we all are obliged to some extent to peer. * * *

For we can not receive our æsthetic experience second hand. With the open-minded attitude which is ready to accept a "message" from any work, however old or however new, there must be combined an insistence upon receiving that message at first hand and for ourselves. The gallery lecturer who in any way attempts to come between us and the superlative delight of growing into the love of a work of art through our growing acquaintance with it, shows us at the start his (or her) failure to grasp the first essential of leadership in art appreciation.

Practically all modern museums carry on one or more of the kinds of educational activity here mentioned. The foregoing examples have been cited only to illustrate types of work, all the specific instances of which are fortunately much too numerous to allow of individual mention.

Art education related to industries has been prominent in America for many years. It is receiving a fresh impetus at present from the prospect that, after the war, the United States will have to depend upon its own resources more than in the past, not only for designers but also for styles of design. A kind of originality must be developed

that can produce things which are not only new but fine in quality. With this necessity in mind, older schools have been improving their facilities, while new schools intimately related to local industries have arisen. The Grand Rapids School of Art and Industry, in Michigan, and the Federal School of Commercial Designing, in Minneapolis, are types of these newer schools. Most of the schools of industrial art offer special opportunities for school pupils whose vocational interests in this field have become evident. The scheme of affiliation worked out by the School of Industrial Art in Trenton, N. J., is typical of this sort of arrangement. Here pupils from the city schools may take courses for which the fees are merely nominal. Technical art courses are provided for pupils who have completed the junior high school, and an art teachers' course is offered for students in the normal school.

American students of textile design have only recently discovered the value to their work of the extensive collections of primitive art which are gathered in the anthropological museums of this country. These students are recognizing the fact that primitive art is often very good art and that it offers a vast source of suggestion and inspiration for designs that are original, in the sense that they are unlike those to which we have become accustomed. In an article entitled "Museum Documents and Modern Costume," in the American Museum Journal for April, 1918, Mr. M. D. C. Crawford writes:

Above and beyond the artistic merit of these costumes, however, they illustrate in a definite manner a very important feature of the educational possibilities and public usefulness of the American Museum. Every single garment in the collection was founded on a specimen in the collection of this museum. In certain instances, the inspiration is perhaps difficult to trace, but in others it is quite obvious. These garments represent the first fruits of what I may term "creative research" by the American costume industry. The documents in the museum were studied with the view of applying ideas, either in decoration or in line, to modern costumes. Instead of the usual method of importing modern foreign costumes (themselves based, generally, on foreign museum collections), our designers, familiar with the practical needs of to-day, have gone direct to original documents for their inspiration. The work, therefore, marks one of the most important movements in the development of a truly American type of industrial art. * * *

It is not difficult to understand how important a part our great museums and libraries must play in the proper industrial expression of art. They are for the artist inexhaustible mines of suggestion. The art of each people and age is an evolution from some former type. The artist, especially the decorative artist, is concerned not alone with purely original creation, but with the inspired selection of certain ideas and motives of ancient origin that may have a fresh significance for his own time and people.

The national need for industrial design is strongly influencing the art departments in high schools and art schools. In the past, many students have entered art work because of their strong liking for that work, but in only a few institutions has the training been directed

and vitalized by any definite knowledge of the actual demands for the product. Consequently, many art students with marked abilities in design but not in pictorial art have received only formal training in design or have given their time to painting pictures, thinking that overcrowded field to be the only place for art expression. Many with valuable talent have turned to work other than art because they had no knowledge of the opportunities offered. Prominent among the agencies which are remedying this condition is the Art Alliance of America. This association was organized in New York City in 1914, with headquarters at 10 East Forty-seventh Street. One purpose of this association is to promote working relations between art producers and the industries. It brings artists and art students into personal touch with industries which need art products. The New York division of this association was organized in New York City in 1914. Galleries are maintained in the heart of New York's shopping district, where exhibitions, organized in close cooperation with artists and with the trades, are held every month. Positions are secured, work sold, and advice given by artists and educators. Hours are assigned daily for personal interviews and examination of work. The Central States division was organized in the fall of 1918 in Chicago, and maintains an office in the Art Institute. At each monthly luncheon the artistic possibilities of some industry are discussed. The movement has the friendly cooperation of the Illinois Manufacturers' Association, and plans for a comprehensive exposition in the fall of 1919 which will illustrate the necessity of art in industry are under way. Additional divisions are being organized in other centers in the country, so that the alliance is likely to exert a strong and direct influence upon the methods of teaching of design, and upon the vocational guidance of students of marked artistic abilities.

CHAPTER IX. INSTRUCTION IN MUSIC.

By WALDO S. PRATT.

CONTENTS.—Depletion in the number of teachers and pupils—Some decrease among independent schools—The transference of music teachers into Army work—Military band development—Camp singing and community music—Discussions about standardization—School credits for outside music study—Other points of progress in public schools—Notable features in private instruction.

In instruction in music, as in other related fields, the outstanding feature of the biennium 1916-1918 is the interference or readjustment occasioned by the European War. On the whole, although there has been some serious disarrangement, the direct or indirect benefits overbalance the losses. In the present rapid summary it will be convenient to mention (1) one or two lines of disturbance from war conditions; (2) several directions in which these conditions have induced novel efforts; and (3) certain points of discussion or progress not connected with war conditions.

DEPLETION IN THE NUMBER OF TEACHERS AND PUPILS.

Depletion in the active staffs of music schools, both independent and affiliated, in the large body of music instructors in public schools and in the host of private teachers has been notable during the past two years. The drain has come not only from direct enlistment or drafting into military service, but from the manifold demands for indirect service. Institutional faculties have been much affected by calls to members to give up their usual forms of work for temporary activity in other directions. The same causes have operated to produce a decided decrease in many instances in the total number of students, both in institutions (except public schools) and under private instruction. Pupils have been considerably influenced by the economic stringency of the war period. The small private teacher and some of the detached music schools seem to have been the most affected. Some individuals have suffered badly.

SOME DECREASE AMONG INDEPENDENT SCHOOLS.

A considerable number of the independent music schools have ceased to exist during the past two or three years. It is not clear whether or not this is due to war conditions. But the fact is noticeable enough to call for a word of comment.

There is no accepted criterion as to what constitutes a "music school." Ten years ago, when Dr. Arthur L. Manchester prepared for the Bureau of Education his bulletin on "Music Education in the United States" he was constantly confronted by this problem of definition. The name of a "school" is occasionally claimed by an individual, or a married couple, or some casual combination of two or three. It is common when a larger number agree to pool expenses and exchange clientele. A surprising proportion of the "music schools" of the country are not much beyond this rudimentary stage of organization. Comparatively few have a curriculum, or require anything from students except regular attendance and prompt payment of bills. The large majority of these students would in any other analogous professional institution be classed as "specials" or "irregulars."

But all small and loosely organized schools are in competition with two other kinds of institutions. One is the strong conservatory in the large city, drawing students from a wide area, with a numerous and diversified faculty, offering many collateral advantages in the way of recitals, concerts, and lectures, and having traditions that favor breadth of training so as to gain some degree of general musicianship. The other is the department or school in a college or university system, where the organization and spirit of the total institution naturally control the work of each constituent part. Both of these types offer much that small and isolated private schools can not give. It appears that the stress of war conditions has heightened this contrast. Of course, a small school is not to be disdained because it is small. Some such are efficient and useful. There is also no objection to cooperative unions of teachers for business reasons. The criticism is to using the name "school" for that which has no clear scholastic purpose or policy. If the pressure of war conditions is reducing the number of these institutions, the progress of musical education will not be much damaged.

THE TRANSFERENCE OF MUSIC TEACHERS INTO ARMY WORK.

A conspicuous effect of the war has been the widespread summons to teachers of singing, particularly supervisors in the public schools, with many instrumentalists as well, into constructive musical work at army cantonments, with the forces abroad, or in public situations related to these. The basis of all this has been the recognition by the Government of the recreational and moral value of music in life, and the parallel recognition by the Young Men's Christian Association and similar organizations engaged in welfare work among soldiers and sailors. The effect of all this has been twofold—the effect upon those thus called as individuals, and the effect upon those among whom they have worked.

It is clear that the army experience of the scores of teachers thus drafted into novel service will be of lasting benefit to them personally. Those who came from the public schools, and many others as well, had been dealing almost wholly with children or adolescents, and more with girls than with boys. In their new work they were confronted by throngs of grown men. This experience has been wholesome and broadening, since the work must justify itself to minds of a critical and impatient order. No doubt in most cases the authorities regarded musical drill mainly as a means of intensifying martial ardor, while the men themselves accented merely jolly goodfellowship and heedless diversion. Yet every serious musical worker has seen the chance to turn even camp music into a real educational force. Particularly has this been stimulated in some situations across the sea, where American troops have been in close contact with French or Italians, and could catch from them a readiness and delicacy of artistic appreciation that is rare in this country.

It is much too soon to say what will be the result of all this army work when demobilization has been accomplished. It would be foolish to expect universal or spectacular consequences. But considering that perhaps four millions of young men have been more or less touched by this musical work, it is likely that large numbers have discovered in it what they had not realized in the way of emotional uplift and also of associational value. It is probable that their attitude toward music for themselves, for their families and for their communities will be more sympathetic and enterprising than in the past. Even if the percentage of such recruits in musical interest is small, their absolute number will be large and their geographical distribution wide.

MILITARY BAND DEVELOPMENT.

At this point a few words should be said about the development of bands and band music in the Army and Navy. Not having had any extensive military establishment, the United States for half a century has given slight attention to this subject. When the Expeditionary Force was first gathered and dispatched there were neither leaders nor players nor instruments available properly to equip the various units. Yet it was speedily seen that band music was of more than decorative importance. But it could not be instantaneously created. All sorts of expedients were tried, both here and abroad. What has been accomplished was creditable, considering the difficulties. For a period Walter Damrosch, the well-known New York conductor, served efficiently in France as a center for some intensive training. But the problem has had only a partial solution. Although we need not look forward to the long maintenance of

such huge forces as during the last year or two, yet for a considerable time their number will remain larger than anything that we have had since the Civil War. For these careful provision of band music is demanded. This immediate need, with regard also to the future, will probably lead to the establishment of one or more governmental schools for training leaders and players or to arrangements with existing agencies for special instruction. Something of this sort has long existed in an imperfect form. One large New York school, for example, has encouraged successive classes of pupils from the military post at Governor's Island, and other institutions are well equipped with band facilities. Now, we may hope, still further steps will be taken to develop the cultural possibilities of many permanent and well-drilled bands, to be used both in military connections and in public service.

The value of this can be seen by recalling what band music has meant for generations in the military and social life of every leading European country. Great Britain, France, Germany, and Italy have been solicitous for this and have made it a real branch of popular education. It is interesting to remember that one of the forerunners of the Paris Conservatoire was the Institut National, founded in 1792, which was primarily a school for military music, and that this element was so prominent that its head, the bandmaster Sarrette, became the first director of the Conservatoire, remaining in office for 20 years. In every garrison town of Europe the military band is one of the established agencies of musical presentation. We have something analogous to this in our town and city bands, but these have not yet attained the influence or dignity generally that is possible.

CAMP SINGING AND COMMUNITY MUSIC.

At first sight the cultivation of singing in soldiers' camps and the far more general interest known as community music have little direct connection. It is a fact, however, that the efforts put forth primarily for the former have had a marked influence upon the advance of the latter. The two will therefore be treated here somewhat in combination, as has already been done by the Secretary of War in his Annual Report for 1918:

A great deal of attention has been given to music through mass singing in camps and communities, singing on the march, competitive regimental and company singing, recreational singing in soldiers' free time, the organization of quartets, glee clubs, and choruses, and the training of company and regimental song leaders to aid the camp song leader. In order to have all the men singing the same songs, songbooks containing patriotic songs, folk songs, popular and service songs, and some hymns were published and distributed. Experiments with vocal and instrumental music in hospitals proved so effective with certain types of cases and so acceptable to the hospital authorities that the matter was

referred to the Surgeon General's Office with a view to its transfer to this department. The services of the camp song leaders have frequently been borrowed by near-by communities. Community singing—the singing of songs the soldiers have been singing—has spread all over the country, and the possibilities, as to both military and civilian morale, are highly significant. A singing nation will emerge from the war.

The immediate educational influence of the soldiers' singing has been widely recognized. Although the grade of music attempted has not often been specially good, to many men it has been a revelation that they could sing, that choral music has a singular fascination and power, and that music thus produced is worth working for. Chorus practice is always impressive as a practical illustration of cooperative effort—as a demonstration of democracy in action. Hence, in addition to the artistic development that it brings, it has important social reactions. The universal testimony is that the system that has been put in force in all cantonments and camps has been immensely valuable. One reason for its success is that many leaders of superior quality have been secured, that they have served under authoritative commissions and with the full support of the commanding officers, and that from the first their efforts have met with enthusiastic welcome by the majority of the men.

Directly radiating from this camp music have been two or three undertakings outside. One has been the supervision to some extent of the recreational opportunities in the neighborhood of cantonments and camps, including both musical and theatrical features. The musical importance of this has probably not been great, except in the exclusion of some inferior performances. Another, which is of decided significance, is the organization of so-called "liberty choruses" in towns and villages generally. Comprehensive statistics about this are not yet available. But in Connecticut, which was more or less a pioneer in this work, some 90 choral centers were established last summer in the space of about three months. Many of these seem likely to continue active for a long time, perhaps even to grow into permanent choral societies. This line of effort is so promising that it is now being supervised and systematically promoted by a commission called the War Camp Community Service (1 Madison Avenue, New York City), conducted by the Playground and Recreation Association of America for the War Department and Navy Department Commissions on Training Camp Activities. Besides a general director there are State directors already in service in a large number of States.

All this has obvious relation to every other enterprise that looks toward the stimulation of community music. Such music has been promoted more or less for a considerable time. The methods used have varied much according to circumstances. In some cases rather

large community choruses have been set up, with regular rehearsals and some concerts, occasionally with soloists and orchestra. In other cases neighborhood "sings" of a much humbler variety have been the goal. Municipal orchestras and bands, supported by public authorities, are growing more common—slightly resembling in function the old "Town Musicians" that once flourished in Germany. A number of cities maintain regular series of free organ recitals by a resident city organist. The most comprehensive plan just now seems to be that of Flint, Mich., which has appointed a city director of music on a liberal salary, expecting him to devote his whole attention to developing community music in every possible form.

Here reference should be made to the fact that more than one of the State universities is giving special attention to this subject. The University of Illinois announces that one of its main objects in carrying on its large and well-equipped department of music is to encourage and uplift the plane of community music. This university has for years made a specialty of band music, and its bands circulate more or less through the State for educational purposes. The University of Wisconsin has long emphasized the holding of local singing assemblies—distantly related to the old-fashioned "musical conventions"—and the training of teachers competent to act as leaders in popular music. The opportunity for this sort of influence is beginning to be recognized by some independent music-schools, as well as by an increasing number of private teachers.

The movement is still very much in its infancy. It has no tradition behind it and not yet an organized momentum. Many would-be supporters are in the dark how to proceed. In some places there is a lack of suitable leaders. Everywhere there is a lack of varied music for singing. A few small collections of "familiar" pieces have been put forth, which are good enough as far as they go, but they do not go far. The circulation of much material of present interest is hampered by copyright restrictions. Our American population really has no body of traditional songs. This is partly due to our racial and national complexity. And the custom of singing has not been general among us, nor that of frequently gathering for the hearing of music. Yet what has always been affirmed by thoughtful musicians is being demonstrated more and more, that there is latent in people generally a large capacity both for song and for appreciation, provided that the proper opportunity can be supplied. It is increasingly clear that difficulties will be overcome and that true community music will spread throughout the Union.

This movement has a vital relation to formal education in music. The latter can never safely allow itself to become exclusively professional. Advanced musical culture cannot be supported except on a basis of popular interest, and it will be unhealthy in quality

unless it refreshes itself by contact with the unconscious and even homely sources of all universal fine art.

Before leaving the subject, brief mention should be made of one phase of the military work that stands slightly apart from what has been mentioned above. This is the development of singing in the Students' Army Training Corps. Here the men in view were mostly from schools or universities. Musical work adapted to them was hardly organized and put in motion before the signing of the armistice opened the way to their demobilization. But it is felt by those who have been specializing in this work that the response to it was so promising that a way should be found to continue it nationally. Whether a suitable method for doing so can be found is not yet clear. But if such a method is feasible, the result would be to connect the well-known zest for singing among students with the larger movement for community music.

DISCUSSIONS ABOUT STANDARDIZATION.

Turning now to matters disconnected with war conditions, there is probably no question more discussed among musical educators than that of standardization. This question especially concerns private teachers and those working in the public schools. It may progress to results that will profoundly affect the entire circuit of education in music.

A few years ago much emphasis was put by some upon the value of fixing a minimum standard of qualification by requiring all music teachers to secure a State license or certificate. This aimed at debarring ignorant and incompetent teachers from "practicing," as it is called in medicine or law. Detailed efforts to secure the enactment of such restrictive statutes were made in more than one State, but without much result except to demonstrate the extreme difficulty of the enterprise. This line of effort seems lately to be less prominent. It is to be hoped that it will not be pressed, at least in the form thus far advocated. There may come a time when some restriction of music teaching by law may be both practical and useful. That time, however, has not yet come.

Meanwhile two or three other lines of effort under the name of standardization are being actively discussed or undertaken. In general, these divide into two classes: Those that aim to standardize teaching proficiency, though not by statute, and those that aim to standardize methods of study and credits to students. Both of these are more or less before the national and the several State music teachers' associations, and some of these bodies have worked out plans that are in operation. Both are voluntary in nature rather than coercive, and both therefore appeal primarily to ambition as a motive. Whether or not either of them results in the adoption of

a system of wide application, agitation of the subject is proving profitable because it increases the thoughtfulness and precision of music teachers as to the aims and methods of their work.

In England and Canada the certification of music teachers has long been carried out with great thoroughness, especially with reference to work in the board schools, but extending by popular favor more or less to all teachers. It accomplishes nearly the same results as have here been sought through legislative action. Something parallel to it is gradually being established here. Established music schools, music departments in certain colleges and universities and many normal schools have courses for teachers that lead to certificates whose value is recognized, and applicants for some positions are expected or required to hold such certificates. Efforts have recently been made by more than one of the State music teachers' associations to set up a system of examination and certification of their own—as was done years ago by the American College of Musicians.

This line of effort is now engaging the thought of many serious musicians, and it is leading to the formulation of interesting and valuable schemes of knowledge and accomplishment to be demanded for teachers of singing, playing, and theory. Its reaction upon those who are discussing it is evidently stimulating, and also its effect as concerns those to whom it is applied. But whether it is to have large influence depends upon two incalculable factors: The number who will be moved to take advantage of it, and whether the public will value such certificates enough to demand that teachers generally shall hold them. Another practical question is as to the persistence, patience, and wisdom with which the associations pursue the matter from year to year. Dependence upon unpaid officials who shift more or less is precarious. And at present there is no State association that includes any dominant proportion of the music teachers in its territory. Though this fact detracts somewhat from the authority of such associations, the moral influence of what they undertake would be considerable if steadily and strongly exerted.

Rather more practically hopeful are the constant debates about stipulated courses of study in various musical subjects, with the marking of successive grades of attainment desired. From the nature of the public school system it follows that where music is introduced in parallel with other subjects the course of study in it must be marked out with much precision. Hence formulated courses have long been establishing themselves in public school music. Analogous conditions exist wherever music is introduced into the system of colleges or universities, though the number and variety of specific topics considered are much greater. The difficulty of the problem in higher education is obviously more serious. There seems

to be a growing conviction that formulated or standardized methods—either of the ordering of topics and material or of pedagogical presentation, or both—should be urged upon private music teachers generally, if not to a degree demanded of them. The question is in part whether private teachers should be expected to follow the system that is somewhat necessary in public schools and colleges. In part it is whether music as a subject of teaching should be made to conform in method to various other subjects. In either case, it is claimed, its methods should be standardized.

It can hardly be said that the discussions of the past two years have contributed vitally to the solution of the very complicated problem thus outlined except in one direction, that will be separately treated in the next section of this survey. Yet they have been fruitful in clarifying thought. On the one hand, foolish notions of an immediate and rigid scheme that would regulate everything and everybody have been discountenanced. On the other, many rational and suggestive plans of work have been drafted, and these have doubtless served to correct the slipshod or eccentric methods of some individual teachers. There is certainly a growing understanding of the nature and elements of the problem. But there is no obvious consensus as to final details.

It is natural that the interest in this matter should have stimulated the promulgation of series of textbooks or other manuals that claim to embody a "standard" course and method of study. This idea has been often exemplified in the history of modern musical education, as in other education. It always serves to increase the store of literary contributions by what certain workers can use to great advantage, and represents the mature thought of one or more experienced authors or editors. All such publications are therefore to be welcomed. But they are liable to bring in commercial elements of doubtful value, especially when improperly promoted. It should be clear that authoritative "standards" can not be established by publishers merely as a business proposition. And, in general, the subsidizing of teachers to use "exclusive" systems is to be deprecated as demoralizing.

It is to be noted, finally, that through all discussions about standardization there runs a line of persistent objection. The basis of this is that music is not a thing nor even a precise muscular or logical discipline, but a psychological experience. It has its objective or physical aspects, of course, which can be somewhat precisely stated and can be learned or acquired like other technical matters. But these, it is well known, are external or accessory to the art itself. It is because of this that so much of musical instruction has always been individual rather than by classes, by the personal impact of a teacher upon a pupil rather than by means of impersonal textbooks. Much

of the current talk about standardization seems to overlook or minimize this fundamental peculiarity of all art education as compared with science education. And, at all events, the range within which standardization can hope to operate is small. It can do little more than fix some irreducible minima of purpose or attainment. With the reaching of the possible maxima it can have little place, since the higher the level of advance the more infinite and intricate become the paths that may be followed.¹

SCHOOL CREDITS FOR OUTSIDE MUSIC STUDY.

In public-school music the most notable event in the past two years is the interest in plans for granting credit for music study with outside teachers. This idea is not new, but at present seems likely to be put in practice in various places and ways as soon as war conditions are over.

The elements of the case for such credit are readily understood. It is generally agreed that music study, to be educationally effective, should begin during "school age," and this is true not only for the few who may choose music as a life work, but for others. Investigation shows that a very large percentage of the boys and girls in the public schools, especially in cities, are taking, or much desire to take, music lessons while attending school.² If such outside work is educationally worth while, or can be modified so as to be so, pupils ought to gain credit for it toward school advancement rather than be forced to get it as an extra. With these propositions as a basis the practical questions have been two: (1) How shall the educational value of such studies be guaranteed? (2) Will the school authorities allow credit for such study thus guaranteed? The onus of defense has been thrown back and forth between the parties in interest—some musicians feeling that the schools must show cause why the innovation is not adopted forthwith, and some superintendents feeling that either all music study is frivolous or the method of it is too loose to be deserving of credit. But during the past two years there has been an increasing disposition to turn from vague presuppositions pro or con and consider soberly in precisely what ways outside study could be allowed school credit. This has forced school authorities and music teachers to combine in drafting specific plans.

The most carefully elaborated plan now accessible is one drawn up by a commission of 15, appointed by the National Education Association, most of whom are also active in the Music Teachers' National Association, and which represents the best views of both

¹ Specially useful papers upon this subject are contained in the last two volumes of the Proceedings of the Music Teachers' National Association, namely, 1916, pp. 165-185; 1917, pp. 199-226. See also further references to these volumes under next section.

² See a remarkable account of an investigation made in Hartford, Conn., in 1912 in the Proceedings of the Music Teachers' National Association, 1913, p. 179.

sides of the question.¹ It makes provision for special registration of the students eligible for such courses, for periodic reports from the outside teachers to the school authorities, and for examinations before credit is allowed. Data are not at hand as to how far this plan, or some modification of it, has actually been put in force. But that the idea it embodies is now meeting with extensive interest is evident, especially in the East and the Middle West.²

Incidentally this movement in school music is effecting some definite results in the way of standardization. The subjects that have been specially considered are the playing of the piano, the organ, the violin, or any orchestral instrument and singing. In each case it has been necessary to work out in detail a definite plan of study that shall be satisfactory at once to outside teachers and to school authorities, and this plan has had to be adhered to firmly in order to meet conditions. Every such effort does something toward erecting practical "standards" by experiment rather than by theory.

Another excellent result of this line of effort is that it brings together the interests of private music teachers and the teachers in the schools. Each group may learn much from the other, just as professional musicians generally, as a group, and the teachers of advanced music in colleges and universities, as a group, may also learn from each other. There has been too much division of the music-teaching profession into separate camps, each jealous or suspicious of the other.

OTHER POINTS OF PROGRESS IN PUBLIC SCHOOLS.

Many signs indicate that several forms of class instruction in the public schools have made decided advance during the past two years. Conspicuous among these is work in music appreciation, in advanced chorus singing, and in orchestral playing. The gain in the first two is simply in detail of method and in scope of influence. Both are well established in high schools and are being handled in many places in such a way as to render genuine artistic service. The institution of school orchestras, not as an outside feature of school life, but as in some way a part of school instruction, is more recent. But this, too, is commanding itself as peculiarly valuable. This latter promises to develop in most of the larger cities. All of this mass instruction in the public schools has an evident relation to the future advance of community music. The orchestral instruction also may prove to have an interesting vocational aspect.

¹This report, so far as relates to this subject, was first printed in the Proceedings of the Music Teachers' National Association, 1916, pp. 105-107. It is also given in the Proceedings of the National Education Association.

²Besides the Proceedings of the National Education Association and the Music Teachers' National Association, to which reference has been made, the Music Supervisors' Journal of the National Conference of Music Supervisors supplies many practical notes.

NOTABLE FEATURES IN PRIVATE INSTRUCTION.

The past two years have not seen many notable changes in the aims or methods of private instruction. Regarding two points, however, a brief remark may be made.

There is a steady increase in the emphasis put by intelligent teachers upon the careful training of little children. Many teachers specialize in work for them, and these have often developed methods of their own that are effective in evoking permanent musical interest and ability. And all teachers of thoughtfulness are realizing that true artistic life may begin in the child's mind before it is ready for effort of a logical or scientific order. It may be that the comparative rarity of evident musical enthusiasm or capacity in the general American public is partly due to a failure hitherto to give due attention to the education of younger children.

In the teaching of harmony there is a marked tendency to desert the paths that once were considered regular and to experiment with all the new speculations concerning musical construction that have appeared in recent years. It is evident that musical thought on these matters is passing through a period of reconstruction. Procedures that were once condemned as unlawful or barbarous are being freely used, not only by composers for effect, but by teachers for technical development. So far as this serves to break up mere academic rigidity and the notion that composition is a matter of rule, it is wholesome. But when it produces an exaggerated interest in chaotic arrangement or eccentric melody and harmony for mere oddity, it may be unhealthy. The point of general interest is that leading teachers are showing a fine balance of judgment about the subject in its present stage. They are generally ready to consider and use all of the new theories that are being proposed, but they are also conservative in believing that these theories are tenable only so far as they can be connected organically with the procedures of the past. It seems likely that in the next decade there will be many textbooks prepared that will offer judicious combinations of things old and new for the guidance of future teachers and scholars.

CHAPTER X.

VOCATIONAL EDUCATION.

By WILLIAM T. BAWDEN,

Specialist in Industrial Education, Bureau of Education.

CONTENTS.—Important factors of progress—The Federal Board for Vocational Education—The Students' Army Training Corps—Vocational training in Army hospitals—Special training in the shipbuilding industry—Vocational education in the Navy—Conferences on special phases of industrial education—The continuation school—Prevocational education and the junior high school—Manual training in secondary schools receives new impetus—Criticism examined.

IMPORTANT FACTORS OF PROGRESS.

The two years under review constitute a period of unprecedented progress in vocational education, since it is probably conservative to say that the tangible results accomplished equal those of any decade preceding. The important factors in this development may here be noted, briefly, as follows:

(1) Most important of all has been the culmination of a 10 years' campaign for securing Federal aid for vocational education, resulting in the enactment of the Smith-Hughes law and the creation of the Federal Board for Vocational Education.

(2) Second in importance only to the activities under the Smith-Hughes Act has been the gigantic experiment in industrial education conducted by the Committee on Education and Special Training of the War Department. The practical working out of this plan for training the "fighting mechanic" will undoubtedly be regarded as one of the achievements of the war.

(3) The Emergency Fleet Corporation of the United States Shipping Board developed a unique and comprehensive plan for greatly increasing the available supply of skilled mechanics for the shipyards. The need assumed such large proportions and the emergency was so threatening that those in charge of the work were forced to devise a special system of teacher training, which involved original and suggestive methods and plan of organization.

(4) Important contributions were also made by a number of other governmental and other agencies, including: The Navy Department; the Department of Labor, through its Training and Dilution of Labor Service; the Council of National Defense, through the War Industries Board and other channels; the National War Work

Council of the International Young Men's Christian Association, and related organizations; the Bureau of Education through a series of conferences, by bringing about the formulation of a constructive program of industrial arts instruction, and in other ways.

(5) During the past two years there has been an unprecedented reliance upon the machinery of popular education for the accomplishment of undertakings of the gravest importance, not to this Nation only, but to the world. This has been true not only in official circles, but nearly every individual and every organization that has had a program for helping to win the war has conceived of the public school system as an indispensable and prominent feature of the measures proposed for bringing about the desired results. It is significant that a conception of the intimate relation between education, our recent achievements as a Nation, and the future security of the Republic has caught the popular imagination, and is reflected in the public statements of responsible officials and other leaders of thought. It is of the greatest significance also that the great bulk of this concerted educational effort, certainly one of the phenomena of history, has found its inspiration and its expression in terms of the vocational phases of education.

(6) There has been an observable increase in both the amount and the proportion of attention given to the problems of vocational education in public discussion. In this increased tendency to think and talk and write in terms of vocational education, it is believed that evidence can be found of a disposition to consider "practical" education and so-called "cultural" education as complementary, rather than alternative, as some alarmists would have it.

(7) This widespread popular interest in educational matters has been accompanied by a new and more critical appraisement of school programs and courses of study and an inquiry as to just what service is being rendered to children. New emphasis has been given to the meaning and aims of education; education is being thought of more and more as something having a definite purpose, other than simply preparation for more education; there is increasing demand that this purpose shall have more definite relation to life and the means and manner of living. The increased emphasis on definition of aims and purposes of types of school, curricula, and special subjects of study, has undoubtedly been stimulated by the operation of the Smith-Hughes Act. The very fact that schools of certain types have been set up, with definite aims declared, has raised these inquiries as to aims and purposes with respect to other schools which have been accepted hitherto without question.

(8) Another significant evidence of progress is to be noted in the gradual diffusion of the idea that secondary education should be thought of as something to be adapted to the needs of young per-

sons of ages 12 to 18 years approximately, rather than something whose content and methods should be determined by the fact that its students are expected at entrance to have completed the prescribed routine of a certain number of grades, and are expected at graduation to meet the arbitrary entrance requirements of higher institutions. Out of this conception comes the growing interest in the junior high school, the continuation school, the cooperative school, and, in part at least, vocational guidance.

(9) More general recognition of the fact that the work of teaching demands special fitness and preparation is one of the encouraging signs to be noted. There is a technic in teaching, as there is in a skilled trade. As an indication of the extent to which this view is spreading, it is worthy of note that during the summer of 1918 there were special classes for the preparation of teachers of vocational subjects conducted under the direction of State boards or departments of education in 26 States, with length of session ranging from 2 to 10 weeks. At the same time it is becoming more and more apparent that the average mechanic, with his lack of education and limited opportunity for acquiring a broad outlook on life, can not with certainty be made into a skillful and inspiring teacher through the medium of these short courses alone.

(10) Our experience in the great war has served to emphasize one serious national weakness, to which, however, attention had frequently been called before. The old-time, all-round apprenticeship system has been allowed to disappear in certain important trades, without any adequate provision for something to take its place, either in industry or in education. No effective steps were taken to insure a continual supply of all-round mechanics, even in those trades in which the need was recognized.

(11) One of the serious shortcomings in the program for vocational education in this country is that, as yet, no adequate measures have been taken looking toward the proper coordination of compulsory-education legislation, vocational-education legislation, and child-labor legislation. There can be no justification for neglecting the fact that in most States a hiatus exists between the close of the period of compulsory schooling and the beginning of the period when young persons are permitted by law to work for wages. The dangers both to society and to the youth are obvious.

(12) There has been a noticeable tendency in public school manual training shopwork toward the industrial point of view, in subject matter as well as method. "Projects, shop experience, community service, jobs, not 'models' are the common objects of discussion" on the programs and in the conferences of manual training directors and instructors.

(13) There has been a notable increase during the past two years in both the volume and the quality of textbooks and reference material in practically the entire field of vocational education. A number of special activities during the war period had the effect of stimulating immensely the production of this material.

(14) Some indication of the development of industrial education in the United States during the past few years may be observed by comparing the "Directory of Vocational Education" issued by the Bureau of Education in 1914 with that issued in 1918. The former was a leaflet consisting of 6 pages of names and addresses; the latter contains 29 pages and a supplement. Obviously this comparison does not give a direct measure of the progress in vocational education, since the published lists of both dates are known to be incomplete. Nevertheless, certain facts are quite suggestive.

In 1914 a systematic attempt was made to compile a complete list of "Schools in which trades are taught." This designation was used in preference to "trade schools," for the reason that a considerable number of schools which are not properly classed as trade schools maintain departments or classes in which real trade instruction is given. The list as published is accompanied by the following note:

In the above list are included schools offering one or more courses which prepare students for the mechanical trades and industries, by teaching the technic of the occupation in whole or in part, with the expectation that the training given in such course shall serve to shorten the usual period of learning or apprenticeship in the occupation.

The number of schools listed on the basis of the returns from a widely distributed questionnaire was 86, located in 19 States.

A similar inquiry made in 1918 resulted in the listing of 285 schools, located in 40 States. Recognizing the difficulty of defining a trade school or a trade class in such terms as will yield figures giving an accurate account of the progress taking place in this important field, the 1918 inquiry was accompanied by the following note:

It is intended to include in this list those schools, public and private, which offer one or more day courses which prepare students, male or female, for the mechanical trades and industries, by teaching the technic of the occupation in whole or in part, with the expectation that the training given in such course shall serve to shorten the usual period of learning or apprenticeship in the occupation.

This expectation should be justified by the provision of conditions which look definitely toward this end, and should include at least the following: (a) The students should spend not less than 10 hours (60 minutes each) per week in the practical shopwork or other technical processes of the occupation; and (b) the instructor should have had practical experience as a wage-earner in the occupation for which he is giving instruction.

In 1918 also, for the first time, an attempt was made to compile a complete list of "Trade continuation schools." Of these, 144 are

listed, located in 29 States. The inquiry was accompanied by the following note:

It is intended to include in this list those schools, public and private, which offer one or more courses, day or evening, for the benefit of students, male or female, who seek, by means of these courses, to prepare themselves for useful employment or for promotion in their present employment, including schools offering cooperative or part-time classes, in which employed persons attend school a certain number of hours per week during working hours, or alternate between school and employment.

The 1918 directory also includes a list of State officials having charge of the administration of vocational education in the several States. The number of persons listed in this section is 157, representing all of the 48 States, as well as the outlying possessions of the United States. With the exception of perhaps a score of positions in six or eight States, this entire official personnel has come into existence during the past four years. The same statement is true also of the official staff of the Federal Board for Vocational Education, now numbering upwards of 500 individuals.

THE FEDERAL BOARD FOR VOCATIONAL EDUCATION.

The Smith-Hughes Act was signed by President Wilson on the afternoon of Friday, February 23, 1917, while the National Society for the Promotion of Industrial Education, to whose efforts this legislation is largely due, was holding its tenth annual convention in Indianapolis. The appointive members of the board were nominated by the President on June 29 of the same year, and confirmed by the Senate on July 17. The first meeting of the board was held on Saturday, July 21, in the office of the Secretary of Agriculture in Washington.

Under the Smith-Hughes Act Federal appropriations ultimately aggregating over \$7,000,000 per annum have been made available for cooperation with the States in the promotion of vocational education in agriculture, in trades and industries, and home economics, including the preparation of teachers. The principle of Federal aid through the States to education in institutions of subcollegiate grade has been established.

Its early enactment was strongly urged by President Wilson in addressing Congress in December, 1916, as—

of vital importance to the whole country because it concerns a matter too long neglected, upon which the thorough industrial preparation of the country for the critical years of economic development immediately ahead of us in very large measure depends. * * * It contains plans which affect all interests and all parts of the country, and I am sure that there is no legislation now pending before the Congress whose passage the country awaits with more thoughtful approval or greater impatience to see a great and admirable thing set in the way of being done.

NEW EDUCATIONAL POLICIES.

As an expression of educational policy, the new act embodies some important departures from previous legislation. It makes provision for the training within the schools of a large group of our population unreached directly by the Federal Government. On the other hand, by offering instruction along vocational lines and of sub-collegiate grade, it supplements the Morrill Act, the expressed purpose of which is to maintain colleges "to teach such branches of learning as are related to agriculture and the mechanic arts * * * in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." On the other hand, since it contemplates a system of training in the schools, it also supplements the Agricultural Extension Act of 1914, in which the service provided is "the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in State colleges in the several communities." Since it imposes definite requirements as to the training of teachers, it also represents a material extension of authority over the purely permissive provisions of the Nelson amendment of 1907.

The Smith-Hughes Act creates a Federal Board for Vocational Education. This board consists of seven members, including the Secretaries of Agriculture, Commerce, and Labor, and the United States Commissioner of Education, *ex officio*, with three members appointed by the President and confirmed by the Senate, ultimately for a term of three years each. One of the appointed members is a representative of the manufacturing and commercial interests, one of the agricultural interests, and the third of those of labor. The board selects its own chairman each year.

The Federal board is charged with the administration of the act, the details as to the care of funds, the certifying of the States, etc., in general plan resembling the legislation for the agricultural colleges and experiment stations. In addition it is empowered to make, or have made, investigations and reports to aid the States in the establishment of vocational schools and classes and in giving instruction in agriculture, and the trades and industries, commerce and commercial pursuits, and home economics. These studies include agriculture and agricultural processes and the requirements upon agricultural workers, similar studies as regards the trades, industries, and commerce, home management, domestic science, and the study of related problems, and the principles and problems of administration of vocation schools and of courses of study and instruction in vocational subjects. In the discretion of the board, the studies concerning agriculture may be made in cooperation with or through the Department of Agriculture. Similar cooperative arrangements may

be made with the Departments of Labor and Commerce for industrial subjects, while the studies of the administration of vocational schools, curricula, and methods of instruction in vocational subjects may be taken up in cooperation with or through the Bureau of Education. An appropriation of \$200,000 per annum, available from the date of passage of the act, is made to the board for its expenses.

STATE BOARDS FOR VOCATIONAL EDUCATION.

To cooperate with the Federal board in carrying out the act, each State when accepting its provisions is to designate a State board of at least three members. The State board of education or some board having charge of the administration of public education or of any kind of vocational education may be designated as the State board, or an entirely new board may be created. Of the 48 States, 35 have designated the State board of education or the State department of public instruction; 11 have designated a State board for vocational education or industrial education; 1 a State board of agriculture; and 1 a State high school board.

The State board is to prepare plans for the approval of the Federal board, showing the details of the work for which it is expected to use the appropriations. These plans it is specified must show the kinds of vocational education contemplated, the kinds of schools and equipment, courses of study, methods of instruction, and the qualifications and the plans for the training of the teachers and agricultural supervisors. In all cases the work must be conducted under public supervision and control.

The plans of expenditures for salaries in agricultural and industrial subjects must show that the controlling purpose of the education is to fit for useful employment, that the training is of less than college grade, and that it is designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon agricultural or industrial work.

The Federal appropriations to the States are divided into three distinct groups, providing, respectively, for the payment of salaries of teachers, supervisors, or directors of agricultural subjects; for the payment of salaries of teachers of trade, home economics, and industrial subjects; for the preparing of teachers, supervisors, or directors of agricultural subjects, and of teachers of trade and industrial and home economics subjects.

The main initial appropriation for salaries in agricultural subjects is \$500,000. This is increased by \$250,000 per annum during the next six years and then by \$500,000 per annum during the next two years, making an appropriation of \$3,000,000 for the fiscal year 1926 and annually thereafter. Like appropriations are made for salaries in industrial subjects.

The main appropriation for preparing teachers and supervisors is likewise \$500,000 for the first year, but increases to \$700,000 and \$900,000, respectively, for the next two years, and then becomes \$1,000,000 per annum thereafter. The Federal appropriations for teacher training must be divided among agricultural, trade and industrial, and home economics subjects, no one of these subjects being granted more than 60 nor less than 20 per cent of the State's allotment for any year.

The training of the teachers provided for will throw a very heavy burden of responsibility on our higher technical institutions and particularly the land-grant colleges. These institutions have been very successful in training technical experts who have contributed in large measure to the success of our industries. They have not as yet paid any large attention to the training of teachers for secondary schools of the strictly vocational type. The pedagogy of this class of education is yet in its preliminary stages. It evidently will not do simply to copy what has been worked out abroad. There is therefore great incentive for men of original thought and inventive skill to enter this comparatively new field of teacher training.

ACTION BY THE STATES.

Up to January 1, 1918, 48 States accepted the Smith-Hughes Act either by specific provisions of the legislatures or by acts of the governors and by that date the plans of the 48 States had been examined by the Federal Board for Vocational Education, approved, and the board had certified to the Secretary of the Treasury that these States were entitled to receive the allotments for the year 1917-18, apportioned by the terms of the act.

Federally aided vocational courses have been set up in agriculture in 41 States, in trade and industrial subjects in 32 States, and in home economics in 29 States; 22 States have organized courses in each of these three fields; in 46 States teacher-training courses have been organized.

The record of the States in this work is impressive, especially when it is borne in mind that the record covers an initial period of only 10 months. In Massachusetts, for example, vocational agriculture is taught in 19 secondary schools with Federal aid; trade and industrial subjects, in 36 schools; and home economics, in 29 schools. In New York the number of Federal-aided secondary schools is 4, of agriculture, 60, and for trades and industries, 40; in Pennsylvania, for agriculture, 38; for trades and industries, 131; and for home economics, 69; in California, for agriculture, 12, for trades and industries, 14, and for home economics, 14; in Indiana, for agriculture, 37, and for trades and industries, 21; in Mississippi, for agriculture,

34, for trades and industries, 1, and for home economics, 3. These States are illustrations of the widespread development of secondary vocational education.

The chief handicap in the promotion or introduction of vocational instruction was the lack of qualified teachers. This was due largely to the war emergency, many of the teachers being drafted or volunteering for service in the Army.

THE SMITH-SEARS ACT.

In June, 1918, Congress passed the Smith-Sears Act, providing for the vocational rehabilitation and return to civil life of disabled persons discharged from the military or naval forces of the United States. The act delegates to the Federal Board for Vocational Education the responsibility of reeducating the disabled men in some useful employment, after their discharge from the Army or Navy, and provides for a plan of cooperation between the board and the Surgeon General's Office, covering the work done in hospitals, in order that the men may have the advantage of a continuous and coordinated plan.

It is provided that there shall be full and complete cooperation of the several Government offices concerned with the future welfare of men discharged from the Army and Navy, including the medical and surgical services of the War Department and the Navy Department, the Bureau of War Risk Insurance in the Treasury, and the labor exchanges in the Department of Labor, and the Federal board. Each will render service in retraining and returning to civil employment men disabled in the war.

The Federal board will act in an advisory capacity in providing vocational training for men during their convalescence in the military hospitals, before their discharge from the Army and Navy, and will continue such training to finality after discharge, as the civilian agency for rehabilitation and placement in industry.

THE STUDENTS' ARMY TRAINING CORPS.

The Students' Army Training Corps represents a unique educational undertaking on the part of the Government. The work was under the direction of the Committee on Education and Special Training of the War Department. A circular of information issued by the committee stated the purpose in view as follows:

The primary purpose of the Students' Army Training Corps is to utilize the executive and teaching personnel and the physical equipment of the educational institutions to assist in the training of our new armies. Its aim is to train officer-candidates and technical experts of all kinds to meet the needs of the service. This training is conducted in about 550 colleges, universities, professional, technical, and trade schools of the country.

The corps was divided into two sections—the collegiate or "A" section and the vocational or "B" section. Of these the former is discussed elsewhere in this report under higher education.

Concerning the latter, it is to be noted that the experience of three years of war in Europe demonstrated the need of large numbers of skilled mechanics and technicians of many kinds. When the United States entered the war, therefore, and undertook the organization of an army, it soon became apparent that a plan must be devised to train mechanics quickly and in large numbers. To accomplish this result the War Department did not depend on the establishment of new schools, but utilized existing institutions which had the necessary facilities. The men, in uniform, were assigned to institutions in units of 200 to 2,000, where they were housed and fed under military discipline for periods of two months each. Military drill and industrial instruction, including shop practice, were provided in an intensive form as the regular daily routine. The initial assignments of men began work on April 1, 1918. Some idea of the magnitude of the undertaking is conveyed by the announcement that on August 1, 1918, there were 52,025 soldiers under instruction, in 35 different trades or occupations, in 144 institutions, located in 46 States and the District of Columbia. It was estimated that by the close of the fiscal year, June 30, 1919, if the plans had been carried out, more than 300,000 men would have received instruction in these courses, sufficient to make them definitely serviceable in some mechanical or technical duty in addition to their training as soldiers.

EFFECT ON EDUCATIONAL SYSTEM.

Without question the work of the Section B units of the Students' Army Training Corps will prove to have been the most significant experiment in vocational education thus far undertaken under a democratic form of government. It is too soon to appraise the results in full, but as soon as adequate reports are available, educators, and especially students of industrial education, are urged to examine them with the greatest care. It is believed that our public-school system may with profit learn a number of valuable lessons from the experience of these Army training units.

In this connection it is possible to refer briefly to two points only, but these will serve to suggest others that will develop later: (1) The experience of the Army training units seems to demonstrate the futility of short shop periods; that is, shop periods too short for the student to see work processes in complete wholes. The amount of ground that can be covered in a short course, eight weeks in length, consisting of daily periods of six or seven hours in shop, drafting room, or laboratory, proved to be greatly in excess of all expectations.

Numbers of competent observers have predicted that the results of this experience will revolutionize educational practice, not only in trade instruction classes, but in colleges and universities as well.

(2) **Experience seems to indicate also that small classes, with a reasonable amount of individual instruction, are essential to accomplish the best results. Individuals vary greatly in capacity and performance, and can not be instructed efficiently in mass.**

VOCATIONAL TRAINING IN ARMY HOSPITALS.

The subdivision of education in the division of physical reconstruction under the Surgeon General, United States Army, was begun in October, 1917, for the purpose of devising plans for providing educational facilities for disabled soldiers and sailors during the period of hospital treatment and convalescence. On May 20, 1918, Dr. James E. Russell, dean of Teachers' College, Columbia University, New York City, was appointed chief of the subdivision.

The work undertaken has been practical, so far as possible, and has included work needed for the hospitals. Activities include, besides repair work of various kinds, basketry, typewriting, telegraphy, academic studies, agriculture and gardening, bookkeeping, free-hand and mechanical drawing, auto repair, carpentry, cobbling, and other handicrafts. In all, more than 100 different activities have been introduced into the hospitals. Sixteen general convalescent and reconstruction hospitals have been provided for, or one in each of the 16 military districts.

The records of 516 cases which have been treated in four hospitals show 184 men able to return to full military duty, 210 fit for return to limited service, and 172 who are eligible for discharge.

In the last group, 12 are classed as helpless or institutional cases; 121 are able to return to their former occupations; and 39 will need further training to fit them for earning a livelihood.

These figures show the division of responsibility in the work of reconstruction. The task of fitting men for further military service is at present the most urgent need, because wherever an able-bodied man behind the lines can be replaced by one less fit physically but vocationally capable, a soldier is gained for active duty.

SPECIAL TRAINING IN THE SHIPBUILDING INDUSTRY.

In October, 1917, a comprehensive project of the greatest interest and importance, looking toward the training of instructors and skilled mechanics for the shipbuilding industry, was undertaken by the Emergency Fleet Corporation of the United States Shipping Board. For this purpose, an industrial training section was organized, and at its head was Egbert C. MacNary, who obtained leave of absence from his position as director of industrial education in Springfield, Mass.

The object in view was to organize a training department in each shipyard, at the head of which was placed a director in full charge of all matters pertaining to the training or breaking in of workers and general supervision of the training department. It was understood that it would be necessary to allow the director and his staff of instructors to be free from the usual duties of production foremen, in order to devote their entire time and energies to training men.

It early became apparent that the necessary expansion in the shipbuilding program depended absolutely on the creation of increased forces of skilled and semiskilled men. The country was scoured for men having knowledge of any branch of shipbuilding, and yet the supply of mechanics proved utterly inadequate to meet the demands of the Shipping Board. It was decided, therefore, that the necessary increases of working forces must be made through training men, and that the task must be undertaken immediately and on an unprecedented scale.

EXTENT OF DEMAND.

The extent of the demand for skilled workers in the shipbuilding industry was not at first generally appreciated by the public. Until recently the largest shipyard in the United States was one containing five ways. When running at full capacity each way provides employment for approximately 1,000 men, including the contributing shops and drafting rooms. At the time this training plan was undertaken, there was under construction at Hog Island, near Philadelphia, one shipyard consisting of 50 ways. The Emergency Fleet Corporation announced in October, 1918, that fully 60,000 additional men would be required within a few months in the Philadelphia district alone.

The solution of the problem evidently was to take skilled and semi-skilled men from kindred trades, in large numbers, and give them short intensive courses of instruction in selected fragments of the shipbuilding trades. Since the typical foreman possesses no special skill in giving instruction to the men who work under him, the first step was to organize for the entire chain of shipyards a source of supply of trained directors and instructors.

For this purpose an instructors' training center was established in the plant of the Newport News Shipbuilding & Drydock Co., Newport News, Va. Associated with Mr. McNary and in charge of this training center was Charles R. Allen, of Massachusetts.

To this center the cooperating shipyards sent relays of selected men for courses of instruction six weeks in length. In most cases the yards sending the men paid their wages and expenses while in attendance. For one-half of each day the men were instructed in the methods and devices of teaching. During the other half they were employed in

actually instructing groups of workers in the yard, under the supervision of the training staff. When the men completed this preparation they returned to their yards to set up training classes for breaking in new men and for advancing employees from their present jobs to those requiring greater skill.

Students of industrial education will await with great interest detailed reports of the means and methods employed in this project and the results achieved.

VOCATIONAL EDUCATION IN THE NAVY.

The section on education in a recent report of the Secretary of the Navy presents a phase of activity not generally appreciated by the civilian. The following passages are quoted:

Every man in the Navy is a student, from the Admiral in the War College to the midshipman at the Naval Academy and the apprentice in the training station and afloat. The beneficial result of the whole educational system in the Navy is that theoretical knowledge is almost immediately put into practice. * * * The man who does not wish to go to school ought not to knock at any door in the naval service. The Navy is the greatest educational institution in America, and in it theory is valued only as it is put into practice. * * *

The Navy offers a wide variety of industrial courses to ambitious young men. * * * In the electrical schools at the Brooklyn and Mare Island Navy Yards the course of instruction comprises machine-shop work, reciprocating steam engines, steam turbine engines, internal-combustion engines, magnetism and electricity, dynamos, motor generators, alternating currents, and the like. In the radio group there is thorough practice in the radio mechanism for receiving and sending. In the Artificer School at the Norfolk Navy Yard men are taught to be shipwrights, shipfitters, blacksmiths, painters, and plumbers. Both at Newport, R. I., and San Francisco are yeomanry schools, where the men are perfected for the clerical work of the Navy, to become expert stenographers, typewriters, bookkeepers, etc.¹

In addition, there is the Hospital Corps, with schools at Newport and San Francisco. Schools for musicians are located at Norfolk and San Francisco. There are schools for machinists and coppersmiths at Charleston, and commissary schools at Newport and San Francisco. The school of aeronautics is located at Pensacola, and the gunners' school at Newport. Referring to the outlook for the blue-jacket, the report well says, "He has the fourfold opportunity of serving his country, learning a trade, improving his mind in study, and travel."

CONFERENCES ON SPECIAL PHASES OF INDUSTRIAL EDUCATION.

During the period under review the Bureau of Education has conducted a series of important conferences of specialists in indus-

¹Annual Report of the Secretary of the Navy for the year ending Dec. 1, 1916.

trial education, superintendents of city schools, and others. These conferences were organized for the purpose of discussing certain special problems of industrial education and related topics, and of making the conclusions arrived at available to students of the subject by means of published reports.

(1) RAISING THE STANDARDS OF MANUAL ARTS INSTRUCTION IN THE PUBLIC SCHOOLS.

The vital relation between the right kind of manual training in the public schools and subsequent industrial education has been emphasized constantly by the Bureau of Education since the beginning of its interest in these fields. For the purpose of studying certain phases of this relationship, a conference of specialists engaged in the training of teachers was held at Peabody College for Teachers, Nashville, Tenn., December 7-9, 1916. Twenty-two institutions, from 11 States, were represented.

The topics discussed included: (1) Analysis of the contacts with possible future vocations that should be represented in the manual arts work, as a basis for determining the task of the institution that is to prepare the teachers. (2) How wide a range of shop subjects may a superintendent reasonably expect one teacher to handle efficiently in combination? (3) To what extent should preparation for vocation be a motive in the work of the elementary school? (4) Definite standards for manual arts work, and means for testing the results of teaching. (5) Problems of practice teaching in preparing teachers of manual training. (6) Qualifications of teachers of manual arts subjects. The following conclusions may be noted:

(1) The development of the manual arts has made a real contribution to other phases of education, in that the units of construction, serving as *units of instruction*, are setting good examples of organization for other subjects.

(2) The whole development of the manual arts seems to be pointing toward a solution of the problem of vocational education. Inevitably the majority of boys and girls are going into other than professional occupations, and we must recognize the importance of the "prevocational" value of manual arts work in the elementary school, furnishing, as such work does, a basis for the education of the whole people much broader and more complete than has been hitherto available. To discover how to assist young persons in the adjustment to possible future vocations is one of the most important educational problems before us.

(3) It is important to distinguish clearly: (a) Manual arts subjects offered primarily for general educational purposes; (b) subjects of-

ferred primarily for the purpose of affording experience in practical activities fundamental to a variety of occupations, to be utilized as a basis for choice of vocation or of subsequent vocational courses; and (c) technical subjects offered primarily for the purpose of affording definite preparation for specific vocations.

(4) By opening the high-school shops during vacant periods to special classes of pupils of less than high-school preparation, the high schools should become the centers for whatever training is needed in many cities for some time to come.

(5) No manual arts teacher can reasonably be expected to teach more than two academic subjects in connection with the usual shop subjects demanded of him.

(6) The course of study in manual training is not to be thought of as simply a series of "stunts." The student should be confronted with a series of "problems" to be solved; and the solution of a problem should involve not only (a) study of materials, and (b) manipulation of tools and processes, and (c) the construction of some finished article, but also, and very important, (d) the planning and working out of the solution.

(7) There is need of more definite standards for measuring or testing the results of teaching, and for determining the progress of pupils in manual arts subjects.

(8) The work in manual arts affords a better opportunity for the preparation of lesson plans (in practice teaching) and careful analysis of processes and procedure than is to be found in any other subject in our training schools. Furthermore, through the emphasis on design an intellectual content has been put into manual arts work to the extent of making it stand out among all the intellectual studies.

(9) The tendency to employ teachers in manual arts and vocational subjects who are not properly qualified for the work to be undertaken is unfortunate, alike for the school, the teacher, the pupil, and the subject. Present methods of examining and certificating teachers, in some localities, are manifestly not adapted to insure the appointment of competent teachers of special subjects.

(10) It is worth while to call attention to the magnitude of the problem involved in producing a person who is a graduate of college, a broadly educated and cultured citizen, and at the same time a professionally trained educator, as well as a specialist in certain technical lines or in certain special vocations. In this we are attempting a tremendously difficult thing. There are involved here certain types of knowledge and skill that have never been required of the school-teacher heretofore; and, furthermore, these are to be measured by standards usually set up only in the various occupations concerned.

(2) POLICIES IN VOCATIONAL EDUCATION.

A conference of specialists was held in Indianapolis, Ind., February 23, 1917, to consider plans and policies in vocational education, and especially the types of investigation which should be undertaken.

(3) PREVOCATIONAL EDUCATION IN THE SMALL CITY.

A conference of superintendents of public schools in cities having a population of 10,000 to 25,000 was held in Kansas City, Mo., February 28, 1917, to consider the problems of prevocational education in the small city. Twenty-four States, the District of Columbia, and Canada were represented by superintendents, principals, and teachers.

The general topic was "assisting pupils in the upper grammar grades to plan ahead." There were 371 cities in this population group according to the 1910 census, and the problem becomes complex when the great variety of conditions is considered. The small city can not expect to offer the same variety of work given in the larger centers, but if the State be taken as the unit, types of experience may be selected from the various industries of major importance, which are especially emphasized in the community.

The conference resulted in the following conclusions: (1) A larger amount of time is necessary for prevocational work than is now usually allotted to manual training or home economics in the grades. It is, further, not only a question of time, but of what is done in the time, hence (2) conditions must resemble those of industry with respect to materials, methods, and speed. A more formal procedure in the school is necessary, however, because of teaching large numbers. (3) The teacher has the responsibility of selecting the "type" experiences, and his success in this depends upon his knowledge and insight. Upon the superintendent rests the responsibility of selecting teachers who can do the job. (4) The equipment now used for manual training and home economics may be used for prevocational work, but there must be a wider range of work than is possible in woodworking and cooking and sewing in a 90-minute period weekly if the work is to be truly worth while as a basis for intelligent choice of future vocation.

(4) FEDERAL AID UNDER THE SMITH-HUGHES ACT AND THE PREPARATION OF TEACHERS.

A conference of specialists was held at the University of Missouri, December 13-15, 1917, to consider the general question of Federal aid under the Smith-Hughes Act, and the preparation of special teachers. Eighteen institutions engaged in the training of teachers in 12 States, as well as three State departments of public instruction, were represented. The topics discussed included: Federal aid

under the Smith-Hughes Act for the preparation of teachers of trade and industrial subjects; curricula for the preparation of teachers of the manual arts; present conditions in respect to practice teaching; a proposed program for practice teaching; problems connected with the examination and certification of special teachers; content of technical courses of study in the intermediate or junior high school. The following conclusions may be noted:

(1) The selection of properly qualified candidates for the teacher-training course is an important matter. Many difficulties will be obviated, and the line of action in specific cases will frequently seem more clear, if it be recognized that no individual may claim an inherent right to teach. The burden of proof, so to speak, should rest on the individual. He should be required to demonstrate his fitness for special service, rather than simply permitted to pursue an expressed desire to secure a position.

(2) New machinery and a new basis for the examination and certification of teachers are urgently needed. These should include means for testing and evaluating: (a) Vocational experience; (b) education and professional training; (c) personality; (d) ability to teach.

(3) For some time to come the scheme should include some effective provision for the training of teachers in service.

(4) Adequate time must be allowed in any curriculum in order to prepare teachers who will be competent to *teach* and *do* the given line of work.

(5) The institution should define more clearly (in terms of prospective teaching position) the aim or goal which it is proposed to assist the student to attain as the result of following any given curriculum.

(6). Observation and practice teaching are essential factors in the preparation of every teacher, and adequate provision should be made for them in normal-school curricula.

(7) It is more important to have a supply of the teachers needed in these new types of school than it is to enforce and perpetuate traditions in the matter of teachers' examinations and certificates.

(8) The discussion of the last topic on the program served to emphasize the following advantages and disadvantages of a school program involving a large number of "acquaintance courses," designed to afford the individual pupil opportunities for shopwork in each of several vocations:

Advantages.—(a) Wide vocational acquaintance; (b) remarkable basis for the cultivation of appreciation; (c) gets the interest of pupils in real work.

Disadvantages.—(a) Danger of lowering standards of workmanship (compared with a program attempting fewer lines of shop-

work); (*b*) technical processes in all lines necessarily confined to the beginning stages; (*c*) impossible to pursue any one line to mastery; (*d*) difficult to obtain teachers qualified to conduct the variety of shopwork proposed, especially in a small school or system.

(5) EXAMINATION AND CERTIFICATION OF INDUSTRIAL TEACHERS.

In order to consider the problems of examining and certificating industrial teachers, a conference of specialists was held in Philadelphia, February 22, 1918. Nineteen States and the District of Columbia were represented. The general topic was "Preliminary suggestions as to desirable basis and machinery for the examination and certification of special teachers." The following conclusions may be noted:

(1) Measures which depend on industry to supply teachers ready-made, or approximately so, must be regarded as merely temporary, and the machinery necessary for detecting such prospective teachers should not be permitted to determine the ultimate forms which such measures should take.

(2) A teacher capable of doing the job effectively represents an individual of a high type, who is already making a distinct success of the vocation in which he is engaged. To divert such persons into the work of teaching will require the payment of adequate salaries.

(3) Tests to be applied must be free from the defects of existing plans for examining and certificating teachers.

(4) Existing methods of examination should be modified so as to include adequate tests of personal characteristics.

(5) Suitable use should be made of practical tests and demonstrations of skill and ability of various kinds.

(6) It is essential that provision be made for examiners who are themselves competent in the field covered by the examination in each case, and whose ratings will thus command confidence and respect in that field.

(7) Every plan for examining and certificating teachers should be supplemented by a systematic and efficient plan of probationary teaching and training in service.

THE CONTINUATION SCHOOL.

One of the noteworthy factors in recent progress in vocational education is the continuation school. During the past decade a number of the States have enacted legislation encouraging the organization of schools of this type. Massachusetts, Wisconsin, and Pennsylvania, especially, have developed strong systems of continuation schools on a state-wide basis.

During the past two years a new stimulus has come from the Federal subsidies made available under the Smith-Hughes Act. As already noted, in 1918 there were 144 trade-continuation schools reporting to the Bureau of Education, located in 29 States and the District of Columbia.

The program of the National Education Association commission on the emergency in education contains a strong plea for a more general development of the continuation school, on a broader and more serviceable basis than has hitherto been characteristic of this institution in this country. The following paragraph is quoted from the recommendations of the commission:

The continuation school is not an experiment in this country. In many of our industrial communities it exists and has proved its usefulness. But it needs extension upon a much larger scale than has as yet been contemplated if it is to counteract the danger that threatens. It needs a broadening of its scope, as well. With us the continuation school has developed as a phase of the movement for vocational education. As it exists in this country to-day, it is essentially a vocational school, limited in its instruction to those subjects that are directly related to employment of the student. This is a narrow conception —far narrower than the conception of the continuation school that has been taking root in England and France. Without sacrificing in any essential way its service to industry, the scope of the continuation school should be broadened to include those elements of general and liberal education that are so fundamental to sound democratic citizenship. It should supply to the boys and girls who must leave school and go to work something of the insight, something of the broader outlook, something of the stimulus to mental growth that the full-time high schools and colleges provide. It should be not a thing apart, a cheap makeshift for the unfortunate, but rather a recognized and well-supported unit in democracy's public school system—a temporary unit, let us hope, serving a useful purpose until the day when democracy decrees that every boy and girl to the age of at least 18 years shall have the privilege of attendance upon a full-time school the work of which is adapted both to his capacities as a learner and to his needs as a citizen.¹

THE COOPERATIVE SCHOOL.

Much attention has been given recently to a special type of continuation school which has come to be known as the "cooperative school." Developed first in connection with the administration of the college of engineering, the plan has been successfully adapted to secondary school conditions, and is in operation in a number of cities.

The essential features of the plan seem to be:

(1) A definite cooperative arrangement between the educational institution and one or more industrial plants, by which the theoretical instruction is given by the institution and the practical experience is

¹A National Program for Education—A Statement issued by the Commission on the Emergency in Education and the Program for Readjustment; National Education Association, Washington, D. C., June, 1918, pp. 24, 25.

given by the industries, and both are coordinated in a systematic and progressive educational program.

(2) Willingness on the part of the industrial plant to make such adjustments in equipment, processes, and methods as are necessary for promotion of the educational aim.

(3) Willingness on the part of the educational institution to eliminate nonessentials and to base theoretical instruction on what actually happens, and sufficient skill in organization to secure "*realization of theory through its practical applications.*"

(4) Careful selection of employers, instructors, and student-workers, who are capable of being inspired with a vision of the responsibilities as well as the possibilities of the plan.

(5) Administration of the device of alternating periods in such a way as to secure continuous and progressive action on the process or job in the factory, as well as in the work of the student and the instructor in the school.

SPECIAL ADVANTAGES IN SECONDARY SCHOOLS.

In considering the advantages of the cooperative plan in the high school it is necessary to recognize that the first appeal is made to boys and girls not now in school—to those who, because of economic necessity or indifference, have left school to go to work or to loaf. The number of these has been variously estimated by different authorities, but it can hardly be doubted that it is in excess of 75 per cent of all minors over 14 years of age. If any considerable number of these can be brought back into the schools, it must be regarded as worth the effort.

In the next place, a strong appeal is made to many boys and girls who are in high school at the cost of much real sacrifice and self-denial. If some way can be found to meet a part of the cost they can and will remain in school.

Again, some lessons can be learned only through practical experience in the ways of the world. Some of these lessons include the proper relation between the material and the spiritual phases of life, the meaning and value of money, the meaning of work and wages, and the relation between them, the importance of life motives. The learning of these lessons is of as much consequence to one individual as to another, irrespective of economic, intellectual, or social status. The cooperative plan is a contribution to the solution of some of the problems involved, and hence its advantages should be placed within the reach of all youth.

With these considerations in mind, the special advantages of the cooperative plan in the high school may be summarized as follows:

(1) The safeguards thrown about the young people in their places of employment, through the supervision exercised by the school and

the cooperation of employers, show an almost unbelievable improvement over the conditions hitherto characterizing the employment of minors in many places.

(2) The cooperative plan makes it possible for some boys and girls to continue in school, because of wages earned on half-time. Prolonging the period of active connection with the school, and of contact with sympathetic teachers and advisers, confers an incalculable benefit on growing boys and girls, and should lead to a permanent impetus to better things.

(3) The plan will doubtless induce some to remain in school because the school work is thus made more interesting, and the student can see a more direct relation between schooling and the promotion of his own interests.

(4) The experiences involved promote a more earnest and thoughtful attitude toward work and the responsibilities of life.

(5) The plan discourages idleness and unwholesome use of time, since the longer school day and year are fully occupied with interesting activities.

(6) The opportunity to engage in gainful employment on half-time, under suitable auspices, has a definite prevocational value, assisting young persons to discover their tastes and probable aptitudes.

(7) The successful operation of a cooperative school or class affords a convincing demonstration that a reasonable amount of work, under proper conditions, can be made to contribute definitely to the development of youth, instead of being, as frequently heretofore, a demoralizing, disheartening, and stunting influence.

(8) The plan gives the student, at the very least, a foothold in some industry or occupation, so that he does not feel lost when the time comes to leave school and take up the responsibilities of self-support.

(9) It should be emphasized that this plan does not neglect the need for general education, but insures to each individual an amount of cultural and liberalizing education sufficient to serve as a foundation for further study if he later finds it possible to continue his education. He certainly gets more of the cultural side of education than he will if he leaves school entirely to go to work.

PREVOCATIONAL EDUCATION AND THE JUNIOR HIGH SCHOOL.

One phase of progress in vocational education has resulted from the enforced examination of proper methods and procedure in the preliminary or preparatory stages, which have come to be included under the generally accepted term of "prevocational education." This development is taking the form of a new interest in the special

educational problems presented by boys and girls during the last year or two of the period of compulsory schooling and the year or two immediately following.

During the past few years certain propositions seem to have been emerging above the surface of discussion: (1) The amount of schooling prescribed by law in most States is not sufficient to guarantee the general diffusion among the population of those qualities of high intelligence, sound health, good citizenship, and economic independence which are regarded as indispensable to our national life; (2) too many of our children for one reason or another, or for no reason, fail to go beyond the legal requirements in the matter of schooling, or even to attain them—for too many boys and girls the minimum has become the maximum; (3) modifications in school programs and methods have induced many children to remain in school beyond the age of compulsory attendance, who otherwise would have left, and doubtless will retain many others if made effective; (4) if we must accept the fact that many children will leave school at the earliest legal opportunity, we can at least give them something during the last year or two they are in school which will be more serviceable to them than the traditional formal curriculum of the elementary school.

In discussing this phase of current progress, Dr. Snedden says:

The efforts now being made in various States to reorganize curricula of training and instruction for children 12 to 14 or 15 years of age constitute undoubtedly the most significant and important of contemporary movements in education. * * *

The educational needs of pupils of 12 to 14 years of age are variable to such an extent that, if conditions of educational administration permitted, a number of courses of training and instruction, dissimilar as to many important elements and also even as to quality of results expected in common studies, should be provided.¹

One of the concrete expressions of this new interest, and an attempt to realize the aim herein referred to, is the intermediate school, or junior high school. On this point Prof. Noyes well says:

It is the glory of the junior high-school plan that it has arisen out of the study of the needs of the adolescent child, that it is a constructive effort to bridge the gap between the elementary school and the high school, by vitalizing the curriculum.²

THREE TYPES OF JUNIOR HIGH SCHOOL.

Prof. Noyes distinguishes three types of junior high school: (1) In this type the teaching is departmentalized, each teacher having

¹ David Snedden: *Manual Training Magazine*, Vol. XVIII, No. 4, December, 1918, p. 158.

² William Noyes: *The Junior High School and Industrial Education*. *Manual Training Magazine*, Vol. XIX, No. 5, January, 1918, pp. 153-157.

but **one or two** subjects. In some cases there have been notable changes made in curriculum, but in many such schools there has been no change in either the amount or the method of industrial work. (2) In this type specialization has been the determining factor. The boy and girl and their advisers decide, so far as possible, upon entering the seventh grade whether he or she is to go to college, to the farm, to the countinghouse, to the kitchen, to the factory, or to the studio. "That such courses are called optional should not divert attention from the fact that the effect of such an arrangement is early choice and specialization in vocational lines." (3) This type is founded on the principle that the boy and girl should have as great variety of experience as is practicable, and that definite vocational choices should be deferred as long as possible.

In its extreme form, the pupil would pass through a cycle, not only of industrial but also of commercial, agricultural, artistic, and academic activities. It assumes that at the age of early adolescence it is impossible to foresee what the predilections and abilities of any child, boy or girl, are going to be.

In America more than in any other country in the world free vocational choices are possible, and examples are constantly brought to our attention of men, and to a less degree of women, who try one vocation after another before settling into their life work. And if we grown-ups keep changing for so many years, by what right should we impose a choice on children under 15?¹

THREE IMPORTANT ELEMENTS.

In the conduct of the industrial work in the junior high school it is important to maintain what Mr. Bowman calls the "vocational guidance flavor." By way of further analysis he points out three important elements which should characterize the work:

(1) The boys should become familiar with tools, form habits of good workmanship, and come in contact with efficient shop organization in each line of work.

(2) They should learn how these constructions are made in industry, how the things they do in the shop are placed "outside," and gain some industrial intelligence and insight.

(3) They should gain information through studies, discussions, talks, visitations, and readings about wages, chances for advancement, working conditions, and the like, in the work outside related to that which they are doing in school. This work will lead to investigations of lines not represented in the school.²

The junior high-school organization provides, or may provide, most favorable conditions for the vocational guidance and prevocational phases of education. That the movement to introduce the junior high-school plan seems to be spreading, as noted elsewhere in the Report of the Commissioner of Education, is significant of further developments to be expected in these fields.

¹ William Noyes: The Junior High School and Industrial Education. *Manual Training Magazine*, Vol. XIX, No. 5, January, 1918, pp. 153-157.

² Clyde A. Bowman: Industrial Education for the Smaller Community. *Manual Training Magazine*, Vol. XVIII, No. 5, January, 1917, pp. 177-180.

As has been pointed out by a number of students of current tendencies in secondary education; however, it is possible in this as in other things to have the form without the substance. Some such systems have advertised the introduction of the junior high-school plan, whereas examination will show that nothing more has been done than to take the seventh and eighth grades from the elementary school, and the ninth grade from the high school, and put the three together in a building of their own.

It is of the utmost importance that there shall be a more definite and authoritative determination of the *purposes* of prevocational education, the junior high school, and other departmental or special schemes of organization, and then a careful checking up of the means employed and the results secured. Formal reorganization is of no avail if actual results desired are not secured.

MANUAL TRAINING IN SECONDARY SCHOOLS RECEIVES NEW IMPETUS.

It has been well said that there are two products of the war which we should not willingly relinquish from our national life: "One is the spirit of thrift which has been brought out by the Liberty Loan campaigns; the other is the enthusiasm for education which has been developed by our training camps."¹

THE NEW EDUCATION.

This enthusiasm for education will necessarily be colored by the experiences through which we have passed, and will reflect the new spirit of patriotism and service. Education must continue to provide for culture and self-development, but from now on it must do more. It has been shown that it is possible for education to develop efficiency of the most rigorous and exacting type, and at the same time to generate idealism and nobility of motive. Even the educational program of our training camps, which many thought of only in terms of inexorable military discipline and short cuts to well-defined objectives, made definite provision for the humanistic element—the "morale" of the troops.

It has been discovered that education can be vocational *and* cultural; henceforth we shall not be satisfied with education that is not both. The new point of view that seems to be making definite headway suggests again the essential unity of the thing we call education.

The immediate effect upon education of the war and its concomitant events unquestionably will be a new emphasis on certain special phases: (1) Education for health, (2) education for vocation, and

¹ *Outlook*, editorial; Dec. 18, 1919, p. 613.

(3) education for citizenship. The urgent need for attention to these matters has been brought home to the consciousness of the people as never before. It is interesting to note that, contrary to the prophecies of some of our educational leaders, the Nation has been afforded a most convincing demonstration that these objectives are positively attainable without the sacrifice of those finer qualities of human life and relationships—the humanistic element—and, what is even more to the point, the machinery and methods for reaching these ends were in process of being definitely worked out.

One of the most helpful and constructive contributions, most needed at the present time, would be the formulation of policies of vocational education which will show clearly and definitely the relationships which a program for vocational education should bear to a program for health education, to a program for citizenship education, to a program for complete education.

In the past this country has suffered and been handicapped by the lack of engineers, scientists, and skilled mechanics, and took no adequate action. During the war the point was reached where measures for remedying this lack became an imperative necessity, and hence schemes for vocational and technical training were developed on an unheard-of scale. We came to realize that we must make a more determined effort to secure for a much larger proportion of our people a serviceable amount of technical and scientific training. In the accomplishment of this purpose we must vitalize the work of the elementary and secondary schools, as well as the higher engineering and scientific schools, and stimulate them to do their part in this great program.

SUGGESTIONS OF EDUCATORS.

For the purpose of aiding and guiding this development, the Commissioner of Education summoned to Washington during the week of May 20, 1918, a group of educators, and requested them to cooperate in the formulation of the outlines of a definite program that might be submitted to school authorities for adoption. The committee included men from the staffs of city superintendents of public schools, principals of high schools, representatives of trade and technical schools, and teacher-training institutions. This group was representative alike of the technical, administrative, and instructional phases of the problems involved, and pooled the results of extensive and varied experience in both education and industry.

Consequently, the program and recommendations of this committee, as set forth in a report published by the Bureau of Education,¹

¹ Industrial Arts in Secondary Schools, etc.; Secondary School Circular No. 4, September, 1918; Bureau of Education, Washington, D. C.

carry great weight, and deserve the careful study of school authorities. Included within the brief compass of 30 pages may be found definite, practical suggestions, some of which may be carried out in the seventh and eighth grades and high-school years in almost any school system in the country.

RECOMMENDATIONS.

The recommendations of the committee may be summarized briefly, as follows:

(1) Boards of education should make it possible to offer training preparatory to some of the occupations specified, at least the foundation work courses, in practically all high schools.

(2) Wherever practicable the cooperative shopwork plan (part-time division between schooling and employment) should be introduced, under the direct supervision of the public-school authorities.

(3) The daily, weekly, and annual school sessions should be lengthened.

(4) Wherever practicable a number of elective two-year vocational courses should be offered, with the following division of time: (a) 15 hours per week in shopwork; (b) 15 hours per week in related and general subjects.

(5) For industrial arts work in the general high school, the minimum amount of time should be 10 hours per week, for a period of three years.

(6) From 4 to 10 periods per week in the seventh and eighth grades should be devoted to handwork, with the emphasis on practical shop-work in wood and metal preparatory to the work suggested for the high school.

Other recommendations relate to consolidated and rural schools, and to the importance of securing properly qualified teachers to conduct the work.

The underlying purpose of the program and the recommendations presented in this report is twofold: (a) To increase greatly the number of boys and young men receiving instruction in technical and industrial work; and (b) to increase the practical effectiveness of the instruction by bringing about a more definite coordination between the work of the schools and the needs of the individual and the Nation.

CRITICISM EXAMINED.

In conclusion, it seems desirable to refer again to certain objections which have been raised to the philosophy underlying the vocational phases of public education. There are still those who appear to be unable or unwilling to perceive that education must be something more than mere cultivation of the intellect. It is difficult to

argue with such persons on the basis of the current conception of publicly supported education in a democracy, which is that education should include at least: (1) Education for citizenship and civic responsibilities; (2) education for health; (3) education for economic self-support, the vocation; (4) education for the human relationships, culture, refinement, use of leisure time, the spiritual values.

In particular, the notion that children who are about to leave school permanently, or who, having left, are recalled for the purpose, may safely be given specific instruction that will assist in getting an economic start in life—this notion has proved a stumbling-block to some who believe that this process involves the sacrifice of something of supreme value to the child and to the State. An attentive reading of certain criticisms which have appeared suggests that the argument, if reduced to the form of a syllogism, would read:

Major premise: Many children leave school as soon as they are legally free to do so, regardless of whether they are qualified to look after themselves or not.

Minor premise: An effective program of vocational education may induce numbers of such children to remain in school longer than they otherwise would in order to prepare for some wage-earning position.

Conclusion: This additional schooling definitely and permanently prescribes the future careers of the children, making it impossible that they shall ever be other than "hewers of wood and drawers of water," and is therefore an offense against both the individual and society.

The principal defect in this argument is that the process of reasoning is invalid, and the conclusion *non sequitur*. Students of education have repeatedly pointed out the fallacy of assuming that a vocation once entered upon by a young person must be followed through life.

Furthermore, the obvious alternative, and the only one seriously proposed, is to accept the fact that the overwhelming majority of boys and girls will continue to drop out of school before attaining adequate preparation for life's duties. And it is precisely against amiable acquiescence in this ineffectual alternative that current popular interest in education has been aroused.

VOCATIONAL EDUCATION NOT AN ENCROACHMENT.

One of the most conclusive summaries of the case against the criticism referred to is a statement recently prepared by Dr. Snedden. It is in answer to the thoughtlessly repeated charge that vocational education seeks (1) to destroy or supplant the public school, and (2) to establish or substitute a narrow type of education which, by teaching mere skill of hand, will limit the possible futures of young people and prescribe for them careers without prospect of growth and development.

In reply to these two charges it is aptly pointed out that, wherever vocational schools have been established, the entrance conditions are substantially the completion of the requirements of compulsory school attendance. In most States these requirements are expressed in terms of age of pupil and school grade completed.

In other words, no youth may enter a vocational school until he has reached the point where he is equally free to enter the shop or office as a full-time worker, or to spend his (or her) days exclusively at farm or home work. To the charge sometimes made that the specialized vocational school is "narrowing," it is a fair retort to question whether it is more "narrowing" than the place in the department store, the specialty in the factory, or the daily routine of office, farm, or home. For these are certainly the prevailing alternatives.¹

In this connection the following statement made by the Secretary of Commerce in President Wilson's Cabinet, and member of the Federal Board for Vocational Education, is pertinent:

Let me say that industrial education is not educating men into the mill. I have been told that it was, and that what was sought was to train a working class; that it attempted not only to train our children into the mills, but also to develop class legislation on their account. The allegations are utterly untrue. Industrial education is for every phase of industry, and those who teach it most and urge it strongest are against confining it to any narrow groove of single processes.²

Instead, therefore, of being chargeable with limiting the opportunities or prescribing the future careers of youth, the vocational school must fairly be credited not only with providing a substantial extension of educational opportunity, but also with equipping boys and girls with the means to make their careers whatever they will. Every step taken in the direction of providing practical education preparing for wage-earning efficiency will lessen rather than increase the handicaps which beset those boys and girls who can not look forward to college or university education.

¹ David Snedden: Publicly Supported Vocational Education: Is it Undemocratic? *Manual Training Magazine*, Vol. XVIII, No. 8, April, 1917, pp. 321-324.

² William C. Redfield; *Manual Training Magazine*, Vol. XVIII, No. 6, April, 1917, p. 252.

CHAPTER XI.

AGRICULTURAL EDUCATION.

By C. H. LANE,

Federal Agent for Agricultural Education, Federal Board for Vocational Education.

CONTENTS.—Agriculture in secondary schools—The elementary schools—Agricultural education at meetings—Agricultural education in other countries—Educational work of the Department of Agriculture—The agricultural colleges—Appropriations—Extension and short courses—The graduate school of agriculture.

AGRICULTURE IN SECONDARY SCHOOLS.

In the passage of the Smith-Hughes Act another important step has been taken by the Federal Government in its relations to education. Under the new measure, Federal appropriations ultimately aggregating over \$7,000,000 per annum have been made available for cooperation with the States in the promotion of vocational education in agriculture, the trades and industries, and home economics, including the preparation of teachers. The principle of Federal aid through the States to education in institutions of subcollegiate grade has been established, and an additional set of administrative machinery has been devised to operate the new system of education which is provided.

As a pioneer measure, the new legislation inevitably recalls the original Morrill Act. Primarily both laws were apparently intended to provide training in agriculture and the industries, the one in collegiate, the other in subcollegiate institutions. They were thus both designed to develop a type of education of the utmost importance to our country, but previously never directly supported by the Federal Government and to only a limited degree by the States and local communities. Likewise both acts involved the introduction of a new system of education into the existing system.

It is somewhat remarkable that these two measures, separated in time by a period of over half a century, should both have been enacted in a period of great national crisis. The Morrill Act of 1862 was of course signed in the midst of the Civil War, while the vocational education act of 1917 antedated by only a few weeks the formal

entrance of the United States into the present conflict. The coincidence is the more striking since both measures were designed to foster agriculture and the industries, foremost among the arts of peace, and since both had been pending in Congress for years before the outbreak of hostilities.

The measure ultimately adopted was introduced into the Sixty-fourth Congress by Senator Hoke Smith on December 7, 1915, and was passed by the Senate with amendments July 31, 1916. Its early enactment was strongly urged by President Wilson in addressing Congress at its reopening in the following December, as—

of vital importance to the whole country because it concerns a matter too long neglected, upon which the thorough industrial preparation of the country for the critical years of economic development immediately ahead of us in very large measure depends * * *. It contains plans which affect all interests and all parts of the country, and I am sure that there is no legislation now pending before the Congress whose passage the country awaits with more thoughtful approval or greater impatience to see a great and admirable thing set in the way of being done.

As an expression of educational policy, the new act embodies some important departures from previous legislation. It makes provision for the training within the schools of a large group of our population hitherto unreach'd directly by the Federal Government. On the one hand, by offering instruction along vocational lines and of subcollegiate grade, it supplements the Morrill Act, the expressed purpose of which is to maintain colleges "to teach such branches of learning as are related to agriculture and the mechanic arts * * *" in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." On the other hand, since it contemplates a system of training in the schools, it also supplements the agricultural extension act of 1914, in which the service provided is "the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in State colleges in the several communities." Since it imposes definite requirements as to the training of teachers, it also represents a material extension of authority over the purely permissive provisions of the Nelson amendment of 1907.

The most radical innovation in the act deals with the method of its administration. Previous legislation along these lines has regarded the college of agriculture and mechanic arts as the State unit, whether for college instruction under the Morrill Act and acts supplementary thereto, the preparation of teachers under the Nelson amendment, the conducting of research in agriculture under the Hatch and Adams Acts, or the carrying on in cooperation with the United States Department of Agriculture of extension work in agriculture and home economics under the extension act. The administration of

those measures dealing with college instruction has centered in the Department of the Interior, and of those dealing with research and extension work in agriculture in the Department of Agriculture. The vocational education act in both respects establishes a new administrative system.

As its head there is provided a Federal Board for Vocational Education. This board consists of seven members, including the Secretaries of Agriculture, Commerce, and Labor, and the United States Commissioner of Education, ex officio, with three members appointed by the President and confirmed by the Senate, ultimately for terms of three years each. One of the appointed members is a representative of the manufacturing and commercial interests, one of the agricultural interests, and the third of those of labor. The board selects its own chairman each year.

The Federal board is charged with the administration of the act, the details as to the care of funds, the certifying of the States, etc., in general plan resembling the legislation for the agricultural colleges and experiment stations. In addition it is empowered to make, or have made, investigations and reports to aid the States in the establishment of vocational schools and classes, and in giving instruction in agriculture, the trades and industries, commerce and commercial pursuits, and home economics. These studies include agriculture and agricultural processes and the requirement upon agricultural workers, similar studies as regards the trades, industries, and commerce, home management, domestic science, and the study of related foods, and the principles and problems of administration of vocational schools and of courses of study and instruction in vocational subjects. In the discretion of the board, the studies concerning agriculture may be made in cooperation with or through the Department of Agriculture. Similar cooperative arrangements may be made with the Departments of Labor and Commerce for industrial subjects, while the studies of the administration of vocational schools, curricula, and methods of instruction in vocational subjects may be taken up in cooperation with or through the Bureau of Education. An appropriation of \$200,000 per annum, available from the date of passage of the act, is made to the board for its expenses.

To cooperate with the Federal board in carrying out the act, each State when accepting its provisions is to designate a State board of at least three members. The State board of education or some board having charge of the administration of public education or of any kind of vocational education may be designated as the State board, or an entirely new board may be created.

The State board is to prepare plans for the approval of the Federal board, showing the details of the work for which it is expected

to use the appropriations. These plans, it is specified, must show the kinds of vocational education contemplated, the kinds of schools and equipment, courses of study, methods of instruction, and the qualifications and the plans for the training of the teachers and agricultural supervisors. In all cases the work must be conducted under public supervision and control.

The plans of expenditures for salaries in agricultural subjects must in addition show that the controlling purpose of the education is to fit for useful employment, that the training is less than college grade, and that it is designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home.

The Federal appropriations to the States are divided into three distinct groups, providing respectively for the payment of salaries of teachers, supervisors, or directors of agricultural subjects; for the payment of salaries of trade, home economics, and industrial subjects; and for the preparing of teachers, supervisors, or directors of agricultural subjects, and of teachers of trade and industrial and home economics subjects.

The main initial appropriation for salaries in agricultural subjects is \$500,000. This is increased by \$250,000 per annum during the next six years and then by \$500,000 per annum during the next two years, making an appropriation of \$3,000,000 for the fiscal year 1926 and annually thereafter.

The main appropriation for preparing teachers and supervisors is likewise \$500,000 for the first year, but increases to \$700,000 and \$900,000, respectively, for the next two years and then becomes \$1,000,000 per annum thereafter. The Federal appropriations for teacher training must be divided among agricultural, trade and industrial, and home economics subjects, no one of these subjects being granted more than 60 nor less than 20 per cent of the State's allotment for that year.

The act embodies a system of Federal and State administration of vocational education which is a compromise between the views of those who thought a separate system of public education should be organized for vocational purposes and those who believed that the unity of our present public-school system should be maintained. Each State is left free to establish a separate system or to make the vocational schools and courses a part of its existing system.

It is probably very fortunate that so much flexibility of organization has been incorporated in this act. This broad measure, which will affect the educational system of our vast country with its great variety of industrial conditions and possibilities, gives an unequalled opportunity for the study and trial of curricula, methods of teaching,

Practical work, equipment, etc., adapted to a wide range of vocations and very diverse environments.

The training of the teachers provided for will throw a very heavy burden of responsibility on our higher technical institutions and particularly the land-grant colleges. These institutions have been very successful in training technical experts who have contributed in large measure to the success of our industries. They have not as yet paid any large attention to the training of teachers for secondary schools of the strictly vocational type. The pedagogy of this class of education is yet in its preliminary stages. It evidently will not do simply to copy what has been worked out abroad. There is therefore great incentive for men of original thought and inventive skill to enter this comparatively new field of teacher training.

For purposes of administration and inspection under the Smith-Hughes Act the Federal board has divided the country into five sections or regions. In defining these regions the States are grouped as follows:

I. *North Atlantic*.—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, and Maryland. Headquarters in New York City.

II. *Southern*.—Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Mississippi, Alabama, Arkansas, Louisiana, and Texas. Headquarters in Atlanta, Ga.

III. *North Central*.—Michigan, Ohio, West Virginia, Indiana, Kentucky, Wisconsin, Illinois, Minnesota, Iowa, and Missouri. Headquarters in Indianapolis, Ind.

IV. *West Central*.—North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Montana, Wyoming, Colorado, and New Mexico. Headquarters in Kansas City, Mo.

V. *Pacific*.—Idaho, Utah, Arizona, Nevada, Washington, Oregon, and California. Headquarters in San Francisco, Cal.

An agent of the Federal board for the fields of agriculture, trade, and industrial subjects is assigned to each region; the agents for home economics remain in Washington. These Federal agents are, in general, to act as administrative representatives of the Federal board in the field, to gather information regarding methods adopted by the several State boards for the administration of the act, and to inspect the work of the State boards in so far as it has to do with the requirements of the law, with the decisions and policies of the Federal board and with the approved plans for the States.

Up to January 1, 1918, 48 States have accepted the Smith-Hughes Act either by specific provisions of the legislatures or by act of the governor, and up to January 1, 1918, the plans of 48 States had been examined by the Federal Board for Vocational Education, approved,

and the board had certified to the Secretary of the Treasury that these States were entitled to receive the allotments for the year 1917-18, apportioned by the terms of the act.

Over 500 agricultural schools and classes were approved by State and Federal boards for carrying on the work in agriculture under the provisions of the Smith-Hughes Act.

The chief handicap in the promotion or introduction of vocational agricultural instruction was the lack of qualified teachers. This was due largely to the present war emergency—many of the agricultural teachers being drafted or volunteering for service in the Army.

In practically every State the State board for vocational education has provided a State supervisor of agriculture. In some cases this supervisor is a part of the organization of the State board and in some cases he acts in a dual capacity as head of the teacher-training work under the provisions of the Smith-Hughes Act and State supervisor of agriculture. This arrangement is due largely to a lack of funds on the part of the State boards for carrying on supervisory work.

In every State but one the State board for vocational education has designated the land-grant college as a teacher-training institution in agriculture. As a result of their designation as teacher-training institutions under the provisions of the Smith-Hughes Act, they have organized departments of agricultural education and are proceeding along very definite lines to train vocational teachers of agriculture.

THE ELEMENTARY SCHOOLS.

There has been continued effort on the part of many agencies to promote the various phases of elementary agriculture in the common schools.

Minnesota.—The work in agriculture in the rural schools has practically all been in the form of boys' and girls' club work. The majority of county superintendents have acted as county club leaders directing the work. The work has been taken up along 10 lines of home projects—corn, potato, pig, calf, garden, canning, poultry, cow testing, bread making, and sewing. Something like 5,000 boys' and girls' clubs were organized in the rural districts in 1918. Most of these come from the rural schools as a unit, with the teacher as the local leader and the county superintendent as county club leader.

New Hampshire.—For the past five years efforts have been made and plans formulated for converting the old-time nature study in rural schools into elementary agriculture of a practical type. During the year 1918, that effort has culminated in enrolling 32,000 school children in home-project gardening. This has been directly under school management through the State department, local superintendents, and teachers.

California.—The California State Board of Education passed the following regulation relative to agricultural instruction in normal schools: "For students entering after June 30, 1919, one unit shall be required in manual training or household arts or both, and one unit in the elements in agriculture, including practical work in gardening, floriculture, and plant propagation."

Massachusetts.—As a result of the appointment of county club leaders in each one of the county farm bureaus in the State, a thorough canvas of the rural schools has been made in an effort to interest them in both home and school garden work and junior extension club work. From 75 to 85 per cent of the rural schools have been reached during the past two years through these agents. In a few instances this has resulted in the establishment of some definite course in agriculture or home economics in these schools.

The extension division of the college of agriculture during 1918 made an effort to arrange a course satisfactory to high-school men that would be accepted by the college for credit on admission. It is felt that this would lead to steps to establish the work in elementary schools to fit the work in the high schools.

Wyoming.—The only teacher-training institutions below college grade in the State are some high schools offering one year of normal training. These schools were established in the fall of 1917, and the only work in agriculture offered in such schools is a short general course in agriculture that is designed to prepare pupils to teach in the elementary schools.

Michigan.—Three new county normal training classes have been established in the State in the past year and a few for the purpose of training rural teachers, making in all 53 such institutions. A law was passed in 1917 requiring all persons who are teaching in the elementary schools to have at least six weeks of professional training before a teacher's license can be issued to them. In all institutions giving training for rural teachers a semester's course in elementary agriculture and in the pedagogy of such subjects is given.

Montana.—In 1918 a bill passed the legislature making agriculture a required subject in the elementary schools. A course of study has been prepared including agriculture. Home project work is a part of the course of study and the State superintendent of public instruction has approved credit for project work to the extent of 50 per cent each year.

Kansas.—The teacher-training institutions below college grade offering work in agriculture are the high schools which are reimbursed from State funds for normal training work. These high schools are offering either one-half unit or a unit of agriculture as a part of the high-school work for those who are planning to teach. Previous to 1916-17 agriculture was not a fixed requirement, now at

least one-half unit is required in all normal-training high schools. About 90 per cent of them, however, give a full unit of that work. The State grants aid of approximately \$200 for this work in approved high schools. The number of high schools giving the work now is 234, and the number giving the work before 1916-17 was 185.

North Carolina.—At the last session of the general assembly a bill was passed providing for a commission to be appointed by the governor for the purpose of preparing leaflets and bulletins containing courses of study, practical outlines in agriculture, to be used by the teachers as supplements to the text. Two bulletins, one for the sixth and one for the seventh grades have been prepared. These bulletins are somewhat in the form of laboratory manuals following the project plan, and it was thought by State officials that they are going to prove a great help to the teachers in making their agricultural work more practical.

New York.—An act of the New York State Legislature for 1917 provides for the employment of directors of agriculture in cities, towns, and school districts not maintaining a school of agriculture, mechanic arts, and home making. The purpose of this act is to employ a person who shall devote his time to interesting young people in practical agriculture and to giving technical instruction accompanying their practical work; to encourage cities and villages to employ supervisors for school, home, and vacant-lot gardening. The commissioner of education will apportion to each city, town, or school district employing or joining in the employment of a director of agriculture a sum equal to one-half the salary paid to such director, not exceeding each year the sum of \$600 for each director employed. The purpose of this work is to encourage boys and girls to undertake agricultural enterprises adapted to their home conditions. The projects may include poultry, pig, and calf raising, growing a certain area of general garden or corn, potatoes, or other farm crops. A complete scheme is found in Bulletin 654 of the University of the State of New York.

Indiana.—Educational Bulletin No. 32 of the Vocational Series No. 17, entitled, "Supervised Home Project and Club Work," contains what is considered the ideal organization for club work in a county. It is described as follows:

An attempt is being made in Montgomery County to perfect a more complete organization than has been possible heretofore in the State. With the financial assistance of the States Relations Service of the United States Department of Agriculture and the cooperation of all the agencies of the State and county, it is hoped that an organization will be perfected that will serve as a model for other counties.

The work in this county is being directed by the county superintendent of schools and the county agricultural agent, working through a committee representing the board of education and such allied county organizations as the com-

munity association, the county fair association, the home economics association, the chamber of commerce, and the live-stock breeders. The fullest cooperation is assured from the banks, grain elevators, and business men. The teachers and their officials and supervisors are interested and in sympathy with the movement.

Each township will employ at least one teacher as a club supervisor. This local supervision will begin February 1, and while the schools are in session each township supervisor will devote time outside of school hours to visiting schools, arousing interest and getting the enrollment. At the close of school, the time of the township supervisor will be spent in visiting club members and giving instruction.

A county director of club work, giving full time to his task, is employed for the full year. He is to work with the township supervisors and teachers, under the direction of the county superintendent and county agent. He will train supervisors, assist in supervising the instruction in agriculture, distribute literature, and correlate the work generally.

Township and county exhibits, demonstration teams, club meetings, and frequent conferences are planned.

AGRICULTURAL EDUCATION AT MEETINGS.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The annual meeting in 1917 of the American Association for the Advancement of Science is one of the great scientific events of the year. It is a vast clearing house for ideas and results in science, and for the testing and molding of views. It presents the largest forum in this country for healthy, tempered but searching criticism in science, without which science becomes self-complacent, lax, and unexacting in its requirements.

The section of agriculture confined its program to a single session and was presided over by Dr. W. H. Jordan, of the New York State Experiment Station. Taken as a whole, the discussions were a frank acknowledgement of the present limitations of our agricultural knowledge, especially the full understanding of it, and some of the difficulties in its application in successful farming. It was a somewhat critical analysis of experimental methods, and it sounded a caution against premature generalization from laboratory results to the farm. As Dr. Jordan stated, the stations have been and are still putting too much time on mere variables that have no broad significance, and too little time on broad fundamentals. He called attention to the fallacy and unwisdom of attempting to state results in terms of dollars and cents, since these have no real permanent or scientific significance.

Speaking of the training of the investigator, Dr. L. H. Bailey held that the research man should be a student in all that the name implies. The investigator in horticulture should have a grounding in chemistry, physics, and physiology, for the grasp they give on

methods and approach. And he should have training in systematic botany, not alone for its knowledge of plants but for its key system, for the drill in comparing things that are actually comparable. His training should also give him a contemplative, reflective habit of thought; and he should always continue to be a student. Unless he continues to acquire much of his preparation as he goes, his research spirit has got its growth. The investigator must prepare himself for each separate piece of work.

In addition to this training in the sciences, emphasis was laid on the need for much study of English, to give familiarity with words and terms in order to make sharp discriminations and comparisons, and to enable clear expression of thought and deduction. This is an all too frequent lack at present. Science is exact, in expression as well as in essence. No worker has a right to be understood except in the terms of his own language. Good training in logic was also advocated, in weighing of evidence, because ability in that line is one of the prime essentials of the investigator.

ASSOCIATION OF AMERICAN AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

Following the general policy adopted many years ago of meeting in alternate years in Washington, D. C., the Association of American Agricultural Colleges and Experiment Stations held its thirtieth annual convention in that city November 15-17, 1916. The selection of the Nation's capital this year seemed especially appropriate, in view of the predominance in the program of questions of nationwide significance, the important relationship developing with various branches of the Federal Government, and the plentiful evidences of the growing realization of the essential kinship and community of purpose of the institutions comprising the great Federal system of education and research for whose interests the association stands.

The program of the association was by no means restricted to agricultural lines. The interests of the association are, of course, considerably broader in scope, and this year, in particular, much emphasis was put upon what may be termed its nonagricultural phases. In the general sessions especially, aside from the addresses of the Secretary of Agriculture and the president of the association and the presentation and discussion of the reports of the standing committees, attention was centered quite largely on the proposed establishment by the Federal Government of engineering experiment stations, the development of military training in the land-grant colleges, and the best ways of conducting extension work in home economics and similar lines of interest to farm women. This trend of the convention, however, in no sense betokened a diminution of interest in

agricultural education and research. On the contrary, it may be questioned whether the realization of the outstanding importance of these phases, and especially the need of adequate and systematic provisions for research, was ever more strongly in evidence. For example, it was the dominating note in the presidential address, given by Director C. E. Thorne, of the Ohio Station, upon the subject of "Progress of education and research in agriculture." Director Thorne reviewed the history of the land-grant colleges, especially in their relations to the experiment stations, and sounded a note of warning that the temptation to neglect the work of the stations in order to take care of the great pressure for educational work must be strongly resisted if permanent progress is to be made. As he pointed out—

science can not stand still. Every extension of the horizon of our knowledge only expands the boundary of the unknown, and makes yet more imperative the necessity for further research, and the institution which contents itself with present knowledge will soon find itself forgotten.

College instruction in agriculture was discussed from several points of view. The report of the standing committee on instruction in agriculture dealt with the question of college credit for high-school agriculture. This included a study of existing conditions by D. J. Crosby, which indicated that agriculture is now accepted as an entrance subject in 44 of the 48 States, but that only one institution allows advanced credit. It was found that agriculture is now taught in 19 per cent of the high schools of the country, and the committee considered this a factor which might well be taken into account in college instruction to a greater degree. Certain fundamental principles of agriculture, it pointed out, might be taught as effectively in the high schools as in the freshman class, or even better if the college instruction is delegated to fellows and assistants of limited years and experience.

Some obstacles, however, were recognized to the acceptance of high-school agriculture, especially the wide variation in the grade of work accomplished. Care is needed in the selection of textbooks and apparatus and the outlining of courses, and it was suggested that the colleges might here render a useful service. In 28 States there is no systematic supervision of high-school instruction in agriculture. In some States the college and the State board of education cooperate, but it was believed that the efforts of the colleges in this field should be suggestive rather than arbitrary, and should scrupulously avoid the appearance of domination.

"Methods of improvement in teaching college agriculture" was discussed by Dean W. W. Charters, of the school of education of the University of Missouri. Dean Charters pointed out that the im-

portant thing in education is not apparatus or buildings or equipment, but the classroom intercourse of teacher and student. He believed that the present teaching of agriculture is very uneven in quality. One difficulty is that the results of teaching are less tangible than those of research and therefore easy to judge in a comparative way. The code of professional ethics which bars instructors of equal rank from the classrooms of others also hinders improvements and obscures the merits of efficient teachers. More attention to the formulation and application of pedagogical principles of agricultural instruction was earnestly advocated. It is of interest to note that very similar views were expressed in the section on engineering as regards instruction in that subject, and that close cooperation with schools of education was a suggested remedy.

The thirty-first annual convention of the Association of American Agricultural Colleges and Experiment Stations, held in Washington, D. C., November 14-16, 1917, seems likely to be long remembered as one of the most interesting and inspiring in the history of the organization.

The important service of the land-grant institutions in this country was attested by several speakers. Thus Secretary Houston declared that while at the time the country entered the war the Nation was not fully prepared for war in any respect—

it was fortunately circumstanced in the character of its agricultural organization and the number and efficiency of its expert agencies. In fact, in efficient machinery for directing agricultural activity as represented by the land-grant colleges, the Federal Department of Agriculture, farmers' organizations, and its alert and patriotic rural population, it excelled any other two or three nations in the world combined.

"The Nation may well pride itself," he said, "on the fact that it had had the foresight generations ago to lay deep its agricultural foundations." He congratulated the representatives of the land-grant colleges on the fine opportunity for service presented to them and on the splendid way in which they had seized it:

The Department of Agriculture has had great comfort in the thought that these institutions, ably planned and wisely directed, existed in every part of the Nation and stood ready not only to place themselves at the service of the National Government but also to take the initiative in a vast number of directions.

The duty of the agricultural colleges in teacher training was pointed out by the standing committee on instruction in agriculture in its report on college teaching in agriculture, with particular reference to the improvement of methods. In this report the committee expressed the view that:

Strong departments of agricultural education will be needed under the administration of the Smith-Hughes Act in order to give the colleges of agricul-

ture the positions they should occupy in the training of teachers of agriculture. Unless these colleges take up the teacher-training work actively at the present time, the funds provided for this work under the Smith-Hughes Act are likely in many States to be divided among a number of institutions, including some of relatively low grade and poor equipment, with the result that our whole system for training teachers of agriculture will be fundamentally weak. The agricultural colleges ought to have a clear leadership in this field, and they can not have this unless they adequately equip their departments of agricultural education.

The committee also urged the development of such departments as a means of improvement of college teaching in general. It was recognized that in the past a large proportion of college graduates without special pedagogical training have done well as teachers, but—

they have succeeded in spite of the lack of professional training, and the percentage and degree of successes might have been much larger if the professional training had been provided. No matter how well manned and equipped the subject matter departments of the colleges of agriculture may be, they need the help of strong departments of agricultural education, not only in the training of undergraduates for teaching positions but also in improving the quality of teaching within the subject matter departments.

The 1917 convention revealed how closely the war has been brought home to the land-grant institutions, depleting the faculty and student body, interrupting many well-established projects, and compelling a redirecting of their entire program and point of view. More strongly, however, did it indicate how largely the Nation is relying on these institutions in the present emergency, and how important are the functions which are theirs to fulfill. It put this great body of public-service institutions, already conspicuous for a season's successful endeavor, formally on record as enlisted for the war, and with their full resources mobilized in the national service.

NATIONAL DAIRY SCHOOL.

The first New England meeting of the National Dairy Show was held at Springfield, Mass., October 12-21, 1916, on the grounds of the Eastern States Agricultural and Industrial Exposition. All previous records for attendance, exhibits, and profits are said to have been broken. Nearly 1,000 entries of dairy stock were on exhibition and the attendance is estimated as averaging close to 30,000 per day.

Much prominence was given to educational features at the show. The United States Department of Agriculture gave special attention to its extension work among boys and girls, with several thousand exhibits of their work and many demonstrations by boys and girls illustrating methods in canning, bread making, dairying, selection of seed corn and potatoes, gardening, treatment of plant

diseases, etc. A working dairy was also in operation by the department.

The intercollegiate stock judging contest was participated in by 18 institutions, many being represented for the first time. The highest rating for all breeds was attained by the University of Nebraska, with New Hampshire first on Ayrshires, Kansas on Guernseys, Massachusetts on Jerseys, and Nebraska on Holstein-Friesians.

There was also an intercollegiate butter judging contest, arranged for the first time. In this contest nine institutions were represented, first place being awarded to the Pennsylvania College.

After a lapse of three years, occasioned by the foot-and-mouth disease situation, the Fourteenth International Live Stock Exposition was held at Chicago in December, 1916. The agricultural colleges were again strongly in evidence, both the grand champion and the reserve champion in the bullock section coming from the University of California.

A new feature of the show is to be a special exhibit each year from some one agricultural college. The institution selected to initiate this practice was the University of Illinois, which depicted in miniature its campus and buildings and likewise a model farm divided into fields supporting a profitable and soil-building rotation as well as much other illustrative material.

At the students' stock judging contest, 16 institutions were represented, 3 for the first time. The first place was awarded to the team from Purdue University, second to the Iowa State College, and third to the Ohio State University.

Following a meeting called by the American Pomological Society, a National Congress of Horticulture was organized at Washington, D. C., in November, 1916, to serve as a central clearing house of horticultural interests. Active membership is to consist of delegates appointed by affiliated horticultural organizations on the basis of membership, and it is hoped thus to enroll representatives of from 50,000 to 60,000 members.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF AGRICULTURAL TEACHING.

The seventh annual meeting of the American Association for the Advancement of Agricultural Teaching was held in Washington, D. C., November 14, 1916. Two main topics were presented for discussion, the content of the course in the college of agriculture for prospective high-school teachers of agriculture and the high-school course in agriculture.

Under the first of these, Dean C. F. Curtiss discussed the relation of the sciences. He thought that the science taught ought to be

applied science, which will directly connect up with the work of the farmer and the community in which the teachers will serve.

As to general professional subjects, K. L. Hatch held that psychology is the basis of the professional preparation, but that whether or not there should be a course in general education is doubtful. The student's time is so taken up with technical work in agriculture that an effort should be made to reduce the professional preparation to the minimum. The course in agricultural education ought to include the principles of general methods. A certain amount of practice work should be required with real students, with real classes and conditions, and with problems teachers are going to meet. Prof. Hatch also discussed at length the growing demand for a course in the college known as general science or elementary science. In discussing this paper R. W. Stimson laid stress upon the importance of training college teachers of agriculture, if for no other reason than that the prospective teachers coming under their influence may imitate good teaching.

G. A. Works took up "The content of the methods course for high-school teachers of agriculture," outlining the work given in the New York State College of Agriculture. This course, which is given three or four times a year, is open only to seniors. It runs for a term with two discussion periods and one laboratory period $2\frac{1}{2}$ hours in length each week. The class is limited to 50 and each laboratory section to 12 students. The laboratory and lecture work are closely correlated throughout the course, and special attention is given to the selection of material adapted to the high-school pupil and to its arrangement in seasonal sequence. Other topics taken up are the place of the home project and the organization of study material for the recitation lesson, the laboratory, and the field trip. A visit to a near-by high school is made for the purpose of studying equipment, library, and home projects, and some work is done in chart making and bulletin collecting and cataloguing.

In a paper on "How to connect the high-school work with practical farm operations," A. K. Getman suggested (1) a seasonal distribution of the topics studied, the study to coincide with the operations on the farm; (2) provision for field and laboratory work; and (3) the use of the home project properly planned, accounted, summarized, and supervised.

C. H. Lane, in a paper on "The content of high-school courses in agriculture," said that it is not merely a question of what is worth teaching and studying, but what is best considering all local conditions, equipment, time, teacher, community interests, adaptations, etc. Thus, the determination of the content and arrangement of a course in agriculture becomes a local problem and no general solution can

be given that will apply equally well to all localities. The following outline of work was, however, suggested: First year, practical work on how plants grow, soils and fertilizers, and field crops or fruits and vegetables, the choice depending upon local conditions as regards available material and interest in home project work. The second year should be given to the study of live stock. After such general courses the student is prepared for more special work. In sections where horticulture is important the third year may well be spent in such specialized branches of plant production as fruit growing, practical work on soils and fertilizers, cover crops, etc., as relate to the production of fruit, or market or vegetable gardening, and one-third of a unit on improvement of home grounds and ornamental planting.

Similar specialized courses should be provided in districts where one or more field crops, dairying, or some other special phase of animal husbandry predominates. In districts having broad interests in agriculture the school should be equipped to offer a number of special courses during the third and fourth years. While the subject of tools, implements, and machinery is necessarily considered in connection with crop production, the subject of farm mechanics is deemed sufficiently important to receive special attention during the fourth year. A half unit in rural economics and farm management should not preclude careful accounting in connection with the projects of each of the previous years nor the study of simple methods of accounting in connection therewith.

NATIONAL EDUCATION ASSOCIATION.

The usual attention was given at the meeting of the National Education Association at Portland, Oreg., July 7-14, 1917. The general topic considered by the National Council was "Agricultural preparedness and food conservation." W. H. Campbell, representing the Farmers' Educational and Cooperative Union of America, presented a paper at the section of the Department of Rural and Agricultural Education on "The rural people a strong factor in rural education problems," which dealt with the revision of the whole educational system of this country from the top down and with the building of a centralized school and its development into a community center for the people in Johnson County, Nebr. The speaker urged that the universities and normal schools be put on a full year, four-quarter plan, and have a department that will receive mature students who have completed the rural school. These universities and normal schools will then be in position to release students for winter vacations for the purpose of teaching short winter terms in the country. These terms should include a course strong in agriculture and domestic science, farm accounting, manual training, and mathematics.

In an illustrated address on "Results achieved in secondary agriculture and methods pursued in actual practice," H. N. Goddard of the Department of Education of Madison, Wis., indicated the progress in the development of secondary agricultural instruction. He stated that two viewpoints have developed in relation to the work, the informational or cultural and the vocational. The latter has gained in relative importance while the informational idea lacks sufficient motive and fails to give vocational training.

In the opinion of the speaker the school plat is a valuable school project and is desirable wherever it can be made certain that it can be well cared for during the summer vacation. The school farm of large size offers many difficulties and should not usually be undertaken in high-school departments. Among successful school or group projects, aside from the school plat, are steer fattening, keeping dairy cows, cow testing, poultry work, shopwork, and construction of all kinds of farm buildings. The school plat should be used for crop production demonstrations, illustrative material, and out-of-door experiments. Home or individual projects, regarded as the more fundamental, have included practically every phase of farm practice that can be carried out on the home farm or garden. Exhibits and contests have been very commonly developed in connection with the projects. Most important of all is the annual school fair held in most high-school departments, where the productive results are rounded up in direct connection with the school community. A large amount of extension work has been carried on. A large general result of all the work has been evident in greater interest and intelligence in the best farm practice and in rural life. A large per cent of the boys and girls in these courses are actually going back to the farms with minds awakened and trained for enthusiastic and efficient work. Many city boys have also been directed to the farm for their future occupation.

It is the unanimous opinion of this department of the association that the time has fully arrived for the establishment of special normal schools whose sole function is the study of industrial, social, and educational rural problems, and the training of teachers who are able to cope with these problems.

AGRICULTURAL EDUCATION IN OTHER COUNTRIES.

AFRICA.

A fifth school of agriculture has been erected at Glen, in the Orange Free State, the opening of which has been postponed because of the financial stringency created by the war. It has a farm of 4,000 acres, acquired at a cost of \$97,200, and school and farm buildings erected at a cost of \$194,400.

The schools, which are located at Elsenburg, Middelburg, Cedara, and Potchefstroom, and the new school at Glen, are located on large, well-stocked, and well-equipped farms, and offer the following courses: A one-year certificate course including theoretical and practical instruction in agriculture and live stock, farm economics and bookkeeping, agricultural engineering, veterinary science, poultry husbandry, horticulture, viticulture (at Elsenburg), and dairying; a two-year diploma course, including, in addition to the preceding subjects, agricultural chemistry and geology, agricultural botany and bacteriology, and agricultural zoology and entomology; a three-year advanced diploma course; a special course in dairying at the Grootfontein school at Middelburg, followed by practical work in a factory dairy; a two-week short winter course open also to women. At the request of the university council of the Cape of Good Hope, courses have been prepared and submitted for the third and fourth years at the agricultural schools for the degree of B. S. in agriculture.

BRITISH ISLANDS.

In 1916 the Board of Agriculture and Fisheries, dealing with the agricultural education work of the various institutions and local authorities in England and Wales, decided as a measure of war economy, to suspend the grants to the Harris Institute, Preston, and to the Royal Horticultural Society's School at Wisley. The Royal Agricultural College, Cirencester, and the Agricultural College, Uckfield, Sussex, were closed in the summer of 1915, owing mainly to the serious decrease in attendance. All of the institutions have suffered as a result of the war. The new buildings at the Armstrong College, Newcastle, have been wholly utilized as a hospital since the beginning of the war, and rooms in the School of Agriculture, Cambridge, and in Wye College, were occupied for a time for military purposes. The Royal Veterinary College, London, is the only institution whose activities have not seriously diminished. To encourage cheese making instead of butter making, with a view both of conserving the food supply and the economical utilization of surplus milk, the board developed a scheme of establishing traveling cheese schools, under which it loaned sets of apparatus to local authorities who agreed to make new and additional provision for itinerant instruction in this subject. Nineteen authorities availed themselves of this offer, and 33 new schools were created in addition to 5 previously in existence.

A report in 1916 on the question of education in its relation to agriculture, with special reference to the problem of how to increase the annual output of skilled cultivators of and workers on the land, by the education committee of the Central and Associated Chambers of Agriculture of Great Britain shows that 50 years ago the number of men working on the land in the United Kingdom was greater by

1,000,000 than it is to-day and to the concurrent steady decline in the production of the land. The committee recommends that the instruction of the elementary schools be made more practical and more truly based upon surrounding life; that new schools of the following types be created: (1) Centralized continuation day schools of the type existing in Canada, (2) the creation of a system of lower-grade instruction centers with courses that would review, complement, and give a more directly vocational bearing to the practical work already done in the schools for boys and girls, (3) a new type of farm school for boys and girls between 13 and 18 years of age to continue the instruction from the elementary school and definitely prepare them for settling on the land either in the United Kingdom or in the British Dominions, and (4) farm lads' clubs; that definite measures should be taken to interest the children in town schools in country life and to induce more poor law children to become interested in the cultivation of the land; that as far as possible all reformatories and industrial schools should have farms attached and the pupils be more directly encouraged to study agriculture; that continuation instruction should be compulsory; and the development of training to enable country children to enter the teaching profession.

Plans are under consideration for the establishment by the Board of Agriculture and Fisheries and the Board of Development Commissioners of Great Britain of a research institute for problems relating to agricultural machinery at Cambridge University in connection with the existing schools of agriculture and engineering.

A movement is on foot to raise a fund of \$750,000 for the erection of new science buildings at the University College of North Wales "as a memorial to the men of North Wales who have fallen in the war." A gift of \$100,000 has already been secured. It is announced that special prominence is to be given in the new buildings to agriculture and forestry.

The Southeastern Agricultural College at Wye, England, has organized a research and advisory department distinct from the teaching side of the college and governed by a separate representative committee, composed in part of research workers at the institution and in part of other scientific men. Some of the work in progress and in contemplation includes problems connected with the general practice of fruit growing, the biological study of flax, the conservation of fruits and vegetables, pasture studies, diseases of sheep, hop breeding, and fungus diseases and insect pests and their treatment by spraying.

The tropical school of agriculture which was opened at Peradeniya, Ceylon, January 15, 1916, received 77 students during its first year of operation. Each student had to cultivate one-sixteenth acre and grow three crops on it, a pulse, a grain, and a vegetable, conducting

all the operations himself. The average age of the students was 21 years. The school staff consisted of a registrar and four agricultural teachers who held the diploma of the Pooma Agricultural College and who carried out the ground work in all subjects. Ceylon had a total of 327 school gardens in 1916, an increase of 40 over the previous year. Government grants were received by over 160 schools for school-garden work.

CANADA.

In the four years that the agricultural instruction act has been in operation it has contributed a total of \$3,400,000 to the Provinces. With the year 1917-18 the grants reach their maximum of \$1,100,000 a year to continue until the completion of the act on March 31, 1923.

In the Province of Prince Edward Island, \$2,500 is set aside for bonuses to teachers who give instruction in nature study and agriculture. Teachers especially trained in two sessions of the summer school receive \$7 for the first half year and \$5 for the second; those especially trained in one session of the summer school receive \$6 and \$4; and those who have not attended summer school but are doing creditable work receive \$5 and \$3. The requirements for grants include: (1) Systematic instruction in rural science in the school every week throughout the term; (2) a written report on the provided form to the department of education at the close of the term showing the instruction that has been given; (3) pupils' records of the work systematically kept in special rural science notebooks; and (4) supervised projects or gardens at the pupils' homes, or a well-kept school garden in which there are some valuable demonstrations and experiments with vegetables or field crops, or with both, as well as attractive flower beds and borders. A school garden neglected in the summer holidays will disqualify for part or all of the bonus.

In 1916 the provincial ministry of agriculture of British Columbia, which until then had always been united with some other ministry, was made a separate and distinct department.

Agricultural instruction has recently been introduced into the high schools of British Columbia in a systematic way. The first class in the Province was organized in September, 1915, and was followed by similar instruction in four other high schools in September, 1916. The instruction is being given by agricultural specialists, and is attended by a total of about 130 boys and girls. A two-year course has been outlined for these schools.

Equipment costing about \$400 is available in each school, with from one-half to one acre of land for experimental and demonstration plats. The salary of the instructor is paid by the provincial department of education, and the remaining expenses by the local authorities.

The Alberta Department of Agriculture began extension work in agriculture last spring with district agents in the field at various points in the Province. The minister of education is cooperating to the extent of making the time of the classes in school available to the agents for the carrying on of the work in cooperation with the teacher and inspector. The plan is to have the pupils take actual part in the growing of garden crops, the raising of chickens, and the feeding and management of young stock on their own farms. Initial group instruction in the laying out, planning, and general cultivation of the home garden is given in the schools, where leaflets and bulletins, seeds, and a limited number of eggs are distributed. Competitions in caring for stock are carried on and the season's program culminates in a fall fair held in conjunction with the district fair or at the most convenient school or village center. The work is being conducted in five centers and about 100 schools are taking part in it.

In a special effort to populate and bring under cultivation large areas in northern Ontario, an agricultural high school and demonstration farms at New Liskeard, a government creamery at the same place, a 50-acre demonstration field near Matheson, and a plant breeding station at Fort William are to be established.

Plans are also under way for the necessary buildings and equipment for a new agricultural school to be established, through the Ontario Department of Agriculture, near Kemptville in eastern Ontario. It is intended to give useful and practical instruction in agriculture to young men between the ages of 16 and 25 who have left school. It is not proposed to duplicate anything already being done in the Province unless to some extent the first two years of the course at the Ontario Agricultural College. The regular course will not be longer than two years and there may also be a number of short courses.

Special provision has been made in Ontario for furnishing homesteads to returning soldiers. These soldiers will first be sent to an agricultural training depot being established at the Government experimental farm at Monteith, where they will receive instruction. When a sufficient number have been trained, a farm colony will be opened at some point along the railway in charge of a competent superintendent. Farms containing not over 80 acres will be laid out and so planned as to bring the various farm houses as closely together as possible. A 10-acre tract will be cleared on each farm, and when this is completed the farm may be allotted free of charge to a soldier. He may also receive machinery, live stock, etc., to the value of \$500, this being reimbursable within 20 years. The final title to the land will be given after five years. The community system will be fol-

lowed in supplying horses, other stock, and implements, and cooperative methods of buying and selling will be used.

Other plans for placing soldiers on the land are also under consideration.

The chief of the Military Convalescent Home of Sans Bruit, Quebec, has made arrangements for teaching agriculture to convalescent soldiers, the courses being in charge of a district agricultural representative. Instruction has been given in practical work in drainage surveys and rotations on the hospital farm, commercial poultry keeping, market gardening, and beekeeping. Some of the convalescents have also helped in field husbandry, soil preparation, harvesting, etc.

What are known as the royal agricultural schools, incorporated by the legislature of Quebec, are designed to give instruction to the sons of soldiers. These schools and farms are situated in the township of Howard, Argenteuil County, and are open to the sons of all soldiers who have taken part in the war. The property of the schools consists of 3,468 acres, with a large residential building to accommodate 25 boys, a residence for teachers, and a number of cottages for workmen. The parents of the boys will be under no expense for their sons while they are at the schools, and when of sufficient age the boys will be assisted in making a start for themselves.

CHINA.

Considerable attention is now devoted in China to agricultural education and experimentation in various classes of institutions. An experiment station was located at Peking in 1907, under the control of the board of agriculture, industry, and commerce. An experimental tract of nearly 300 acres is available, and departments of crops, soils, animal husbandry, horticulture, floriculture, entomology, botany, forestry, bacteriology, and biology have been put in operation. In 1907 an agricultural college was organized in connection with the station, but this was disbanded in 1915.

Subsequently an agricultural college and experiment station was established at the capital of each Province along much the same lines as at Peking, and many other stations in addition. There are now reported to be 130 stations in the 22 Provinces, of which 31 are in Chihli, 25 in Szechwan, 15 in Hu-Long-Kiang, 7 in Hupeh, and 7 in Kwangtung.

Among these are two cotton-experiment stations, one at Cheng Ting Hsien, Chihli, and one at Nan T'ung Chou, Kiangsu, with a third under consideration at Tung Haing Chou, Hupeh. Experiments are being conducted at these stations in seed selection, seed distribution, plant harvesting, soils and manures, treatment of pests, and cotton weaving. A corps of students is also being trained at these stations.

Stock-raising experiment stations have been established at Kalgan and Shih Men Shan, Anhui. These are expected to study the improvement of breeds of domestic animals, promote the breeding and sale of stock and stock raising enterprises, and the cultivation of forage crops.

Considerable attention is also being devoted to forestry in China. A department of forestry was organized in January, 1916, with a forestry commissioner in each province. Forestry-experiment stations and training schools have been established at Ch'ang Ch'in Hsien, Shantung, and in the Temple of Heaven at Peking.

The university at Nanking has maintained a college of agriculture and a school of forestry for several years. This is an American-supported institution, and in 1915 had enrolled about 70 students in agriculture. A colonization association has been organized under its auspices, with provision for the reservation of about 35 acres in each colony for a model farm. A tract already purchased on Purple Mountain, just outside Nanking, is to be used as an experiment station in connection with the different colonies.

An agricultural experiment station was opened at Nanksuchou, Anhwei, in 1915, as a part of the American Presbyterian mission station. Agricultural work was taken up at this institution partly as a practical way to teach Christianity, partly to make friends, and partly to improve economic conditions. The station is located on the railway between Nanking and Tientsin, and attempts to serve an area of about 6,000 square miles and from 1,500,000 to 2,000,000 people. The farming methods in use are those of from one to two thousand years ago. Special prominence is being given in the experimental work to seed selection, better tillage methods, more and better fertilization, drainage, and animal husbandry. The work is to be largely of a demonstration nature during the present pioneer stage, and will also include an agricultural school, a school farm, and short winter courses for farmers.

LATIN AMERICA.

According to the Bulletin of the Pan American Union a practical school of agriculture has been opened at Aconcagua, in Chile, and steps have been taken to found an agricultural school for women in the Province of Aconcagua.

The agricultural school at Challapata, Bolivia, for the instruction of the natives has been moved to Rosario Plantation, near the town of Challapata, and enlarged.

A recent executive decree in Colombia provides for the establishment of a tropical agricultural station annexed to the national institute of agronomy in the municipality of San Lorenzo, Department of Tolima. General instruction is expected to be given in various branches of agriculture and allied sciences, including veterinary science, and courses will also be arranged for students who desire to

specialize along certain lines. Particular attention will be paid to teaching students how to distinguish beneficial from injurious insects met with in practical agriculture. The government of the Department of Antioquia has taken preliminary steps to establish a laboratory for the manufacture of vaccine to be used by stockmen in the prevention of murrain and similar diseases of cattle. A recent executive decree places the national meteorological service, established in 1917, under the department of public instruction.

The school of agricultural mechanics at Bahia Blanca, Argentina, which admits pupils of not less than 17 years of age, had an attendance of 32 in 1916. The shops of the school have been equipped with new machinery.

The Department of Agriculture of the Dominican Republic has provided a traveling agricultural instructor to recommend measures for obtaining more abundant yields of staple crops. An agricultural school was recently organized at Charpentier, Haiti.

An agricultural experiment station of the coeducational schools of Amatitlan, Guatemala, recently began operations, the equipment having been donated by a philanthropic citizen of the community.

In Mexico a school of agriculture was opened in Hermosillo, the capital of the State of Sonora, in March, 1917, under the direction of the governor of that Commonwealth. In the same month a national forestry school was inaugurated at Coyoacan, a suburb of the City of Mexico. The agricultural experiment stations in the States of Vera Cruz, Puebla, San Luis Potosi, Oaxaca, and Tabasco have been supplied with modern machinery and appliances, as well as improved seeds, and instruction by experts will be given to farmers in these States. A publication entitled *Rivista Agricola* has been founded in the national capital.

An agricultural school has been established in the Department of Leon, Nicaragua, with Manuel Godoy as president. The Government has also formulated a plan for a course of instruction in the new national school of agriculture, according to which there will be a section for the instruction of laborers or farm hands, a section for agriculturists or farmers, and a section for agronomists or agricultural engineers. The governor of each Province is to select by competitive contests two boys who have passed the fourth grade of primary instruction and are over 13 years of age for entrance into this school at the expense of the State. A school for boys not over 16 years of age who have studied agronomy for at least a year was opened recently at Chinandega City, with an appropriation of \$5,000 for its installation. It is equipped with up-to-date machinery and implements necessary for the proper cultivation of cereals and other crops, and makes a specialty of teaching its pupils the practical use and advantages of machinery in agricultural operations.

The Government of Uruguay has granted 10 scholarships in its agricultural school to young Paraguayans who desire to continue their studies in Uruguay.

An executive decree in Uruguay places its agronomic stations under the immediate supervision and control of the Department of Fomento. At the suggestion of the park commission of Montevideo, a school for gardeners has been established in the national capital for the purpose of supplying special skilled labor of this kind.

School and Society announces that a Pan-American university has been established in the Republic of Panama. The trustees are to consist of the Secretary of Public Instruction of Panama and the diplomatic representatives of the American Republics or their delegates, together with similar representatives of other nations which may maintain chairs in the university. It is hoped that the institution may be of international value, especially along the lines of medicine, law, and agriculture.

In Venezuela, a presidential decree of March 12, 1917, creates an experimental station of agriculture and forestry, with an acclimatization garden, to be located near Caracas, and intended to serve as a model for other such stations to be established in other parts of the Republic. The objects of the station are the improvement of the methods of cultivation of the principal agricultural products of the country; the introduction, selection, and distribution of seeds; experiments in reforestation; the suitability of soils to crops and of crops to the various regions; and practical work for the training of agricultural foremen and forest rangers.

The Council of Public Instruction of Ecuador has arranged to establish an agricultural class connected with the faculty of science of Central University at Quito. The professor in charge of this course is also to edit an official bulletin to encourage the study of agriculture.

PHILIPPINE ISLANDS.

Beginning with the school year 1917-18, all schools where a course in farming is given are to be in session throughout the year. This is not entirely a new venture, as for several years all settlement farm schools and most agricultural schools have been in continuous session, and notwithstanding the younger pupils enrolled in them, these schools have maintained the best farms.

The calendar year has been divided into 42 weeks of classroom work, 4 weeks of special field practice, 4 weeks of vacation, and 1 week each for examinations and an annual cleaning up. Each pupil enrolled will be given a vacation of 4 weeks at the time in the year that the farm activities can best spare his services. All teachers assigned to farm schools are required to render service throughout the

school year, except that short vacations may be given when their services can be spared.

It is believed that students should be detailed to definite projects and thereby become factors in a productive enterprise. Each pupil is expected to do field work for not less than 4 consecutive periods (160 minutes) each day for 5 days a week, and daily field work up to 3.5 hours may be required at the option of the principal. Each pupil is required to perform at least 3 hours of field work on every other Saturday forenoon.

EDUCATIONAL WORK OF THE DEPARTMENT OF AGRICULTURE

During the past two years extension education through specialists has become prominent, both at the State agricultural colleges and in the Department of Agriculture. Both at the State agricultural college and in the Department of Agriculture are specialists in various branches of agriculture who aid county agents in their work, and also give direct instruction to farmers in counties where there are no county agents. A specialist is generally an extension agent who has a very thorough knowledge of some particular line of work and who is efficient in presenting his subject to the county agents and the farmers. He may be differentiated from the county agent in that the county agent has to cover in a more or less thorough way the entire field of agriculture, whereas the specialist's field of work is generally limited to a narrow field, such as dairying, horticulture, poultry, etc.

The principal lines of extension work of this character being conducted in the Department of Agriculture are hog-cholera work, pig and poultry clubs, dairying, and animal husbandry, through the Bureau of Animal Industry. All of this work is conducted in cooperation with the agricultural colleges in the several States under project agreements mutually entered into as a part of the general system of cooperation under the general memorandum of understanding between the Secretary of Agriculture and the colleges of agriculture.

In hog-cholera work veterinary field agents have been appointed to cooperate with county agents and demonstrate to them and to local veterinarians and farmers the prevention of loss from hog cholera and of the spread of the disease from herd to herd by the use of the serum treatment and proper quarantine and sanitation of premises.

In the dairy-extension work specialists are appointed to conduct work in the various States through county agents and otherwise by organizing cow-testing associations, bull associations, teaching the keeping of herd records, planning the construction of silos, the remodeling of dairy barns, milk houses, and other dairy buildings, establishing feeding demonstrations, management of herds, and other special dairy-farm problems.

In soils, forestry, plant pathology, marketing and rural organization, etc., specialists are also employed to carry on extension work.

In addition to the fund provided for the regular cooperative agricultural extension work, Congress passed in 1917 the food-production act, which includes an item of \$4,348,400 for increasing food production, eliminating waste, and promoting conservation of food, by educational and demonstrational methods through counties, districts, and urban agents, and others. Under the provision of this act over 1,600 emergency demonstration agents have been employed, and for the first time agents have been designated to take up work in the larger urban centers.

The enrollment in the South in boys' and girls' agricultural clubs increased in 1917 and now approximates 100,000 in the regular clubs. In addition to the regular enrollment, approximately 20,000 were enrolled to assist in meeting the emergency incidental to the war. A large number were enrolled in wheat clubs for 1918, wheat, rye, and oat clubs being organized wherever the growing of these crops was thought to be practicable.

Farm makers' clubs for negro children were organized during 1917 in several States. Much work has been done every year in these clubs among the negroes, but it was systematized as a separate project in 1916.

Pig and poultry clubs promoted in cooperation with the animal husbandry division of the Bureau of Animal Industry are very popular. Poultry clubs which consist largely of school pupils are usually organized in the schools through the direction of the county agents, the teachers serving as local leaders or supervisors of the work. Officers, including a president, vice president, and secretary are elected, meetings held as regularly as possible, and the work carried on in an educational and businesslike manner. The State poultry club agents or poultry specialists working under the supervision of the Animal Husbandry Division, Department of Agriculture, and the director of extension at the State agricultural college, visit these schools and deliver lectures on various subjects as well as give actual demonstrations on selecting, culling, killing, and dressing for market, and other phases of poultry work.

For the fiscal year ending November 1, 1917, 8 States, comprising 281 counties, were carrying on the work, representing 1,010 clubs and 13,664 members. Club members furnishing reports hatched, during 1917, 98,272 chicks and raised 80,310 mature fowls. They sold \$17,908.25 worth of poultry and eggs for market and breeding purposes and the total value of their receipts, stock on hand, and prizes won amounted to \$41,312.42. In addition to other school work, these poultry club members are becoming proficient in the selection and judging of standard-bred poultry, and also demonstrating their ability to carry on various phases of poultry work, such as operating

incubators, preserving eggs, caponizing cockerels, killing and dressing fowls for market, etc.

Boys' and girls' pig clubs are also quite closely interwoven with the rural-school system. The pig clubs are usually organized around a school or community as a unit. The rural teachers are recognizing the value of pig clubs as a vitalizing factor in school work and are heartily supporting it. Many rural teachers are acting as local leaders, and swine extension workers visit the schools and give lectures, demonstrations, etc., on swine work.

The school pig is one phase of the pig club work in which the rural school is especially prominent. A great many rural schools have raised a pig on the school grounds, the pig usually being fed on the scraps from the children's dinner pails.

The progress made in boys' and girls' pig club work has been quite satisfactory. During the past year 35,980 members completed their pig club work, and there are now more than 100,000 boys and girls enrolled for this season's work. The average profit of the members fattening a pig was \$11.38, and that of the members raising a sow and litter was \$72.84. Seventy-one per cent of the members raising breeding stock had pure-bred animals. Pig club work is now carried on in 28 States.

During the year ending June 30, 1917, there were in the 33 Northern and Western States 1,124 paid leaders working in connection with the boys' and girls' club work. In addition to the paid leaders there were 9,748 volunteer club leaders. Two hundred and forty club leaders were paid cooperatively by the State and the United States Department of Agriculture, 133 by the State agricultural college and the local people, 18 by the college only, and 733 by the local people.

During the year ending June 30, 1917, there were in the 33 Northern and Western States a total enrollment of 406,633 members of regularly organized clubs. In addition to this about 400,000 boys and girls were enrolled in the war-emergency projects—growing gardens, canning food products, raising poultry, making war bread, and doing other things of a special character.

During the period from December 1, 1916, to April 1, 1917, 3,589 club members in the Northern and Western States attended the one or two weeks' short courses at the State agricultural colleges; 1,528 of these were champions of their respective counties in the boys' and girls' club work and were sent by the local people free of expense to attend the courses.

The division for agricultural instruction of the States Relations Service continued its project which had to do with the study of the methods of organization and administration of instruction in agriculture in public schools, the training of teachers for this work

and the relationship of different agencies in promoting such instruction. Under this second project four additional conferences dealing with the problem of teacher training in land-grant colleges (making seven in all) have been held. The aim of these conferences held both in the North and the South was to work out a tentative course which may be taken as a guide for training teachers in agriculture and to cooperate the various forces and agencies which would promote agricultural education.

This division has continued its work in the preparation of courses of study for teachers of elementary agriculture in cooperation with State agricultural colleges, experiment stations, and State departments of education. Bulletins have been prepared and published for the schools of Virginia and Ohio. Similar courses have been prepared for Vermont. In addition to these bulletins others have been issued dealing with the elementary school courses in agriculture; among the recent ones are Lessons on Tomatoes for Rural Schools, Lessons in Poultry for Rural Schools, Lessons on Pork Production for Rural Schools, Lessons in Dairying for Rural Schools.

The publication of the Agricultural Education Monthly has been discontinued and in its place have been issued a series of documents dealing with various phases of secondary instruction in agriculture.

A series of leaflets on how teachers may use Farmers' Bulletins have been prepared. Twenty-one in all have been prepared, of which 18 have been published.

The beginning of the administration of the Smith-Hughes act has brought demands for a large amount of service which has not been in printed or multigraphed form. A memorandum of cooperation between the Federal Board for Vocational Education, the Bureau of Education of the Department of the Interior, and this bureau contemplates a series of investigations under the Smith-Hughes Act, a part of which shall be conducted by the division of agricultural instruction. The committee representing this cooperative work has already begun the plans for such studies. A bulletin on the home project as a phase of vocational agriculture has been prepared by this division at the request of the Federal Board for Vocational Education and submitted to the board for publication.

This division has made an extensive study of the problems of visual instruction in agricultural education and has completed a series of lantern-slide lecture sets dealing with various phases of agricultural education. Among those more recently added to the list are How to Teach Poultry Lessons in Elementary Schools, Lessons on Tomatoes for Rural Schools, and Teaching Garden Practice.

Plans have been developed by means of which illustrative material of various types may be made more available to schools in the several States, especially to help State officers prepare duplicates of our material.

The literature on agricultural education has been reviewed and abstracted by this office. Card indexes of the world's literature of agricultural education, as well as American and foreign institutions for agricultural education and home economics, were maintained by the division.

THE AGRICULTURAL COLLEGES.

The declaration of a state of war in April, 1917, profoundly affected our system of higher education in agriculture almost immediately. Attendance, which in most land-grant colleges had been steadily rising from year to year was suddenly depleted as the call came for one form or another of national service. Some institutions closed their doors early in May and in others the work went on under greatly changed conditions.

In response to an inquiry from the Secretary of the Interior as to the duty of the land-grant colleges and technical schools during the war, the situation was admirably stated by President Wilson in a letter of July 20, 1917, as follows:

The question which you have brought to my attention is one of the very greatest moment. It would, as you suggest, seriously impair America's prospects of success in this war if the supply of highly trained men were unnecessarily diminished. There will be need for a larger number of persons expert in the various fields of applied science than ever before. Such persons will be needed both during the war and after its close. I therefore have no hesitation in urging colleges and technical schools to endeavor to maintain their courses as far as possible on the usual basis. There will be many young men from these institutions who will serve in the armed forces of the country. Those who fall below the age of selective conscription and who do not enlist may feel that by pursuing their courses with earnestness and diligence they also are preparing themselves for valuable service to the Nation. I would particularly urge upon the young people who are leaving our high schools that as many of them as can do so avail themselves this year of the opportunities offered by the colleges and technical schools, to the end that the country may not lack an adequate supply of trained men and women.

It will be noted that in this statement particular stress is laid upon the need for men trained in applied science. In this group will be included, of course, the graduates of the agricultural colleges. In view of the important and unique functions which these institutions have to fulfill, and the realization that in some ways the conditions regarding their prospective attendance differed from those in other institutions, it was deemed of general interest to ascertain, after their reopening in the fall of 1917, how they had fared as regards enrollment. A general survey of the existing situation showed that the average decrease for the institutions reporting was slightly over 30 per cent and in numerous cases exceeded 50 per cent. Some sectional variation was noticeable, several southeastern colleges maintaining their previous registration and others falling only

slightly below it, while losses were exceptionally heavy in the Southwest and in the Middle West.

On the other hand, the average decrease in mechanic arts was approximately only 15 per cent and did not exceed 36 per cent for any institution.

Analysis of the registration by classes in the agricultural colleges revealed heavy losses at every stage. As would be expected, the senior class was largely effected, decreases from 40 to 60 per cent being not uncommon.

The depletion of the junior and sophomore ranks was found to be somewhat smaller in most institutions.

The entering classes, however, present a special problem for consideration. Before the war steadily increasing numbers of freshmen, in many cases taxing the capacity of the college, had been the rule, but in the fall of 1917, 36 institutions reported losses ranging from 8 to 60 per cent. The Texas College reported an increase of over 12 per cent, resulting in the largest class in its history, and four others showed smaller gains, but the average for the entire group was a loss of about 25 per cent.

Expressed not in percentages, but in actual numbers, the data are even more striking. For the institutions available the freshmen aggregated in 1916, 4,630, and in 1917 only 3,463. This means a decrease of 1,167 freshmen students in agriculture in the 41 States reporting this item.

Another problem before the land-grant colleges to-day is the provision of special courses to meet the emergency needs. Thus, as regards the training of teachers, at the outbreak of the war there were upwards of 1,000 college trained young men teaching agriculture in schools below college grade, the number has now been seriously depleted, while the development of work under the Smith-Hughes Act alone has created a demand for several hundred additional instructors with such training. It is suggested that the colleges can do much to "prevent the serious lowering of standards by increasing their facilities for training undergraduates for the teaching profession, by conducting emergency courses for teachers now in service, and by the intensive training along agricultural lines of college graduates in arts and science courses."

Emergency short courses in agriculture have already been offered by a number of institutions and their further development seems logical.

The committee on instruction in agriculture of the Association of American Agricultural Colleges and Experiment Stations was of the opinion that not within a decade "has there been a time so favorable for giving serious attention to measures for improving the

quality of teaching in the colleges themselves as the present war emergency affords."

If the reduction in enrollment of agricultural students by nearly one-third seems discouraging, it is well to reflect that in England wholesale losses of faculties and students have occurred, that several institutions have closed their doors, and that others have been very seriously restricted in their operations. In our own country no such developments are expected and often the enrollment is far in excess of that of a few years ago. When the importance of trained agricultural leadership becomes thoroughly realized, particularly in its relations to the existing emergency, there need be little doubt that the agricultural colleges, as the training ground for such leadership, will receive and retain the full support in every direction which they will need for this vital service.

BUILDINGS.

The new Hilgard Hall at the University of California is an elaborate four-story structure, of reinforced concrete, 60 by 300 feet, costing with equipment about \$370,000, and constituting the second of the three buildings which will complete the agricultural quadrangle. It will serve as the headquarters of the college of agriculture, housing the departments of agronomy, citriculture, forestry, genetics, pomology, soil technology, and viticulture.

The new animal-husbandry laboratory at the Iowa State Agricultural College has been completed. It is a one-story building 74 by 112 feet, costing about \$50,000. It has been devised especially for work in connection with the slaughtering, dressing, cutting, and curing of meats. The basement contains a 10-ton refrigerating plant, coolers, a smokehouse, refining, sausage, lard, and other by-product rooms, offices, etc. The main floor can be divided into three distinct rooms, or used as a whole for demonstration work.

The new beef-cattle barn at the University of Minnesota, to replace the structure burned, is practically completed. It is 60 by 120 feet with a wing 36 by 120 feet. The portion to be used as a stable is built of hollow tiles with reinforced concrete. Two hollow-tile silos adjoin the stable, and the wing contains a laboratory for class work and demonstration. The total cost is about \$25,000.

A two-story institute hall has been completed at the Duluth substation. The first floor contains an auditorium and office space, and the second dormitory accommodations, a kitchen, and a dining room. The new equipment will make possible the holding of community gatherings at the substation, as well as afford a meeting place for various farm organizations of northeastern Minnesota.

Wolf Hall, the new \$280,000 building at Delaware College, will house all the activities of the agricultural department and temporarily the college departments of chemistry and biology.

Plans have been approved by the building committee for the new agricultural building at the Maryland State Agricultural College. The legislature has appropriated \$175,000 for the construction of this building, which will be a three-story and basement structure with a front wing 200 by 68 feet connected with an inclosed bridge with an auditorium seating about 1,000 people and this in turn connected with a rear wing with the same dimensions as the front.

A plant for the curing and drying of meat is to be erected on the New Jersey State Agricultural College farm. The structure will consist of two fireproof and two waterproof compartments, one to be used for the slaughtering of animals and the other for the curing and storing of meat. There will also be a small compartment for smoking meats. This plant will provide facilities for instructing students in the long and short courses in agriculture in home butchering, which will be given due attention as a part of the campaign for the conservation of foodstuffs.

Substantial progress is being made in the construction of a new \$100,000 administration building, auditorium, and museum at the New York State College of Agriculture.

The Oklahoma Agricultural College and station has recently completed a modern two-story grain storage house. The upper story will be used for laboratory work in plant breeding, seed selection, etc. The lower floor has six rooms, three of them designed for storage rooms for small grains and equipped with special appliances for fumigation, and the remainder are designed for a general receiving and work room, a machine room for the graders, ginners, etc., and a general storage room, respectively.

APPROPRIATIONS.

A State appropriation in Alabama of \$100 per annum for the years 1915-1918, inclusive, is now available for each county that raises a similar sum to be used for prizes, premiums, and other phases of boys' and girls' club work. These funds are spent under the joint supervision of the State board of agriculture and the county authorities under plans and rules submitted by the professor of school agriculture of the Alabama Polytechnic Institute.

The Arkansas Legislature for 1917 appropriated \$481,000 for the ensuing biennium for the divisions of liberal arts, agriculture, engineering, and education. This is an increase of approximately 50 per cent over any previous appropriation.

The Connecticut General Assembly of 1917 appropriated \$28,000 for the construction of a central heating plant at the State agricultural college, and added \$2,500 per year to the maintenance appropriation of the station. Other appropriations for the biennium included \$12,000 for the State entomologist, \$40,000 for the suppres-

sion of gipsy and brown-tail moths and nursery inspection, and \$15,000 for the control of white pine blister rust.

A law passed by the Montana Legislature in 1917 appropriated \$10,000 for the reimbursement of the cost of transportation to and from their homes of students at the State agricultural college, the State university, the State school of mines, and the State normal college. The purpose of the act is to equalize the cost of attendance at these institutions to students coming from distant parts of the State.

The Delaware Legislature appropriated in 1917 a total of \$285,890.27 to the State agricultural college for the ensuing biennium. Among the items authorized were \$125,000 for the new dormitory at the women's college, \$32,000 per annum for the maintenance of that college, \$32,000 for a new heating plant, \$10,000 per annum for the maintenance of the agricultural department, \$7,890.27 for agricultural extension. Gifts made to the college from an unannounced donor during 1916 amounted to \$1,000,000 and are being utilized largely for buildings.

The Kansas Legislature for 1917 appropriated to the State agricultural college \$80,000 for the purchase of land to be used for animal husbandry, dairy, and poultry farms, and \$50,000 for an addition to the agricultural building.

The Massachusetts Legislature for 1917 appropriated to the State agricultural college \$40,000 to enlarge the power plant, \$33,000 additional for new equipment, and \$10,000 for maintenance and improvement of the market garden substation at Lexington.

In 1917 the New York State Legislature appropriated \$779,401 for the State agricultural college for the ensuing year, in addition to an earlier emergency grant of \$55,910 for the present year and \$42,000 for printing.

A bill appropriating 125,000 pesos (\$62,500) for the establishment of an experiment station in connection with the college of agriculture, was passed by the Philippine House of Representatives at its 1917 legislature.

The Porto Rico Legislature at its last session appropriated \$1,000,000 for aid in the growing of food crops. In 1917 about 40 rural teachers were engaged in all sections of the island.

A bond issue of \$1,000,000 was authorized by the Tennessee State Legislature in 1917 for buildings and other improvements by the State university, supplemented by the proceeds of the half-mill tax, estimated to produce about \$336,000 per annum at present and to be used for maintenance. About \$100,000 may be used for the construction of buildings at a substation in middle Tennessee.

The Texas Legislature for 1917 established the West Texas Agricultural and Mechanical College on a grade coordinate with the existing institution at College Station, as well as a junior college located

elsewhere to give two years of high-school agriculture and two years corresponding to the freshman and sophomore years of college work. Provision has also been made by the legislature for establishing a third junior agricultural college to be known as the Northeast Texas Agricultural College. An appropriation of \$250,000 has been made for its establishment and maintenance. Special appropriations were made for the station and substations, aggregating \$225,095.34 for the year beginning September 1, 1917, and \$181,270.40 for the following year.

The 1917 legislature of West Virginia granted an additional \$75,000 for the agricultural building. The legislature also appropriated \$20,000 for buildings on the new farms.

EXTENSION AND SHORT COURSES.

Special instruction courses for extension workers were held in December at the University of Arkansas, and a course specially designed to meet the needs of home demonstration agents, including English, gardening, dairying, rural sociology, poultry work, rural social engineering, household conveniences, rural recreation, sanitation, home nursing, care of infants, etc., from January 7 to February 2, 1918.

Four-year professional courses in forestry and forest engineering have recently been established at the University of California. A 12-weeks short course was also given, begining January 15, 1917, to help practical woodsmen. The work included theoretical training in surveying, log scaling, timber estimating, logging, fire protection, silviculture, forest administration, trail and telephone construction, English composition, grazing, and the work of the United States Forest Service.

A feature of the annual short course in January at the Georgia State Agricultural College was the food-conservation school for farm women. County demonstration and home economics agents who have recently taken up work in the extension departments were also present at these courses.

A four-weeks course in dairying has been offered at Purdue University to women preparing themselves to fill positions in factories manufacturing dairy products. This course included the testing of milk and dairy products, the making of soft cheese and ice cream, dairy bacteriology, general dairying, and lectures on food production.

A special short course was arranged at the Iowa State Agricultural College in November, 1917. This course included instruction in agriculture, home economics, engineering, and industrial science, and was open to young people who have not yet completed high-school work as well as to those prepared for full collegiate instruction.

Evening courses in various branches of agriculture were offered in 1917 at the Maryland State Agricultural College. These courses included special work in beekeeping, poultry raising, and fruit growing for suburban residents of Washington, D. C. College credit was given for these courses so far as practicable, with a system of certificates showing all work completed.

The Annual Farmers' Convention, held at the North Carolina Agricultural College and Station, in August, 1916, under the auspices of the college, station, and extension workers, was one of the most successful meetings of its kind yet held in the State. About 3,000 men and 2,000 women were in attendance. The special subject of the meeting was rural education, which was graphically presented by means of an exhibition in which several booths were grouped around a larger booth in one of the college buildings. The smaller booths represented the activities of the station and extension service, while the larger booth represented a consolidated or farm-life school.

A school of education has been organized at the North Dakota State Agricultural College with four courses covering four years and two courses covering two years for completion. The four-year curricula are designed for teachers of agriculture, the mechanic arts, science, and vocational and rural school administration, while the two-year curricula are for teachers in consolidated schools and special teachers.

THE GRADUATE SCHOOL OF AGRICULTURE.

The seventh session of the Graduate School of Agriculture, under the auspices of the Association of American Agricultural Colleges and Experiment Stations, was held July 3-28, 1916, at the Massachusetts Agricultural College. The attempt was made to develop a more systematically organized plan of work at this session than had hitherto been undertaken. This plan involved work in two main lines. One of these included progressive consideration of the fundamental factors involved in the growth of plants and animals. The other dealt with the economic and social factors which enter into the development of profitable systems of agriculture and well-organized rural communities.

At its public opening exercises the school was welcomed to the Massachusetts Agricultural College by President K. L. Butterfield, and the granges of New England were represented by Rev. J. H. Hoyt. Dean A. C. True, of the graduate school, outlined briefly the objects for which the school was established, the reasons for the particular courses of instruction offered at the seventh session, and the intellectual and social advantages to be derived from the contact of instructors and students in such a school.

Dr. True pointed out that in our time—
education and research more and more involve the harmonious working together of groups of individuals who are willing to put away selfish ends for

the common good. In a vast country like our own with a population drawn from all quarters of the globe, and with an almost infinite variety of environmental conditions, associations of scholars and investigators from many different regions, whether their work deals with subjects remote from practical affairs or, as in the case of most of us, with matters of vital concern to great industries, is of great importance as an aid to that mutual understanding on which the life of our Nation and the perfecting of our civilization depend. For after all, as recent events in the world's history have shown, public opinion and governmental action depend more largely than is generally recognized on the modes of thought which are developed in the institutions of higher learning.

Such an organization as this graduate school, having behind it the associated universities and colleges represented in the Association of American Agricultural Colleges and Experiment Stations, may also be influential in shaping the ideals and standards of agricultural scholarship and research. If through our discussions here we are able to carry back to our respective institutions suggestions for the improvement of courses of instruction and methods of research and to stimulate faculties and students to more thorough work, we shall have made a valuable contribution to those influences which are to determine the success of the great movement to raise American agriculture and country life to the highest possible level.

Since the last session of our school this movement has made unusually rapid progress. The permanent national system of agricultural extension education, provided for in the Smith-Lever Act of 1914, has already become well organized and attained great dimensions. In over 1,200 counties, spread over the entire country, extension agents are regularly working. Supporting these local forces are about 1,500 extension specialists and administrative officers maintained by the State colleges and the Department of Agriculture. At least 1,000 teachers are giving instruction in agricultural subjects in our colleges, and the number of students in four-year courses of agriculture has risen from 14,000 in 1913 to 19,500 in 1915. The past year 4,900 secondary schools gave agricultural courses attended by 95,000 students, as compared with 1,400 schools and 30,000 students two years before. The force employed in our agricultural experiment stations has risen to 1,860 and the income of the stations in 1915 was \$5,286,000. The force employed in the Department of Agriculture is over 16,000 and its income about \$25,000,000.

The demand for thoroughly trained and efficient workers in agricultural lines, whether in research, education, or farm practice, has never before run so far beyond the supply. The responsibilities of the leaders in the agricultural movement have never been so heavy. Their encouragements have never been so great. This body of young men, who have already been trained in our higher institutions of learning and many of whom are already engaged in teaching or research, have before them exceptional opportunities for leadership and high success. The incentives to thorough preparation and the most strenuous endeavor are of the highest and broadest character. To discover nature's secrets and thereby advance science and human welfare, to inspire and instruct a vast multitude of men, women, and children in colleges, schools, and millions of homes, to lay a firm and safe foundation for the permanent existence and prosperity of the United States and in large measure of all the world—these are the appropriate tasks of agricultural scholars and scientists.

A week was devoted to discussions of the problems of education with special reference to the training of students along agricultural lines. Dr. W. C. Bagley, director of the school of education of the University of Illinois, gave five lectures on the foundations of peda-

- gogy. He argued that not only knowledge but "skill" is a legitimate and important end of education, whether the subject taught is what is ordinarily called cultural, such as language and mathematics, or technical, as engineering and agriculture. The interrelations of technical and cultural aims in education were also dwelt upon. A clear and impartial résumé of the experimental researches on the disciplinary value of various studies was given, with the conclusion that the evidence thus far accumulated indicates that there is a certain disciplinary result which may be transferred from one study to another, but that this is not so large as has been commonly held by the friends of the old classical education.

Dean W. W. Charters, of the school of education of the University of Missouri, presented some of the principles on which methods of teaching should rest. He laid special stress on the principle that the normal mental process in learning is to work from problems toward their solution. A problem arising in the experience of the student or being presented to him by his teacher, the learner may become in large degree his own instructor, especially if the solution is of vital interest to him. The application of this principle would in many subjects result in economy of mental effort, increase of interest, and more permanent results. Good method should always culminate in elaborated and well-organized knowledge.

At the seminars the practices of teaching various agricultural subjects were presented by Dean R. L. Watts, of Pennsylvania State College, on vegetable gardening; Prof. C. G. Woodbury, of Purdue University, on pomology; Prof. C. A. Zavitz, of Ontario Agricultural College, on agronomy; and Prof. J. E. Rice, of Cornell University, on poultry husbandry, as well as by members of the Massachusetts College faculty and others. On Saturday a conference on the training of men for agricultural service was led by President H. J. Waters, of the Kansas Agricultural College, who dwelt on the nature and function of the college course in its adaptation to this end, and by Prof. G. A. Works, of Cornell University, who discussed the relation of the agricultural college to the preparation of teachers of agriculture in secondary schools.

The conference was followed by a round-table discussion by teachers of secondary agriculture on the value of the college courses in agricultural education as a means of preparation for teaching agriculture, this meeting being one of the series of conferences held during the past year through the cooperation of the United States Bureau of Education and the States Relations Service. During this educational week emphasis was often laid on the importance of training in the principles and methods of education for students intending to become teachers of agricultural subjects in colleges or schools.

CHAPTER XII.

THE UNITED STATES SCHOOL GARDEN ARMY.

By J. H. FRANCIS, *Director.*

This name was adopted in March, 1918. The work of the organization is an expansion of work undertaken by the Bureau of Education in 1914. The scale upon which it was done was limited by the finances that could be secured for it.

The acute demand for food production growing out of the war conditions made expansion possible.

Mr. P. P. Claxton, Commissioner of Education, addressed the following letter to Hon. Franklin K. Lane, Secretary of the Interior, on February 14, 1918:

MY DEAR MR. SECRETARY: For several years the Bureau of Education has been developing slowly, with a small appropriation, a plan of school-directed home gardening in cities, towns, villages, and suburban communities which has proved so effective, both for education and for food production, that I feel it to be almost imperative that it be put into operation at once in all parts of the country as one means of meeting the food emergency which now exists and will probably continue to exist for two or three years at least.

The plan consists in enlisting boys and girls between the ages of 9 or 10 and 14 or 15 in systematic garden work for food production on such plats of ground as can be had for this purpose near their homes, on back yards, side yards, and vacant lots, and then providing teacher-directors for them at the rate of one teacher-director for each group of from 100 to 150 garden workers. Parents and older brothers and sisters are induced to cooperate with the children whenever this is possible. The work of the children is done after school hours and on Saturdays and vacation days, so that no time is taken from school.

In the schools of cities, towns, villages, and suburban communities of the United States there are approximately 7,000,000 children of the ages given above; of these probably 5,000,000 would be able to find some space for gardening and can be induced to do systematic garden work under this plan. For their instruction and direction 40,000 teacher-directors will be needed, and in all the larger places there should be general superintendents and instructors of these teacher-directors. Under proper supervision this army of boys and girls may easily produce \$250,000,000 worth of food, which will reach the consumer in perfect condition without cost for transportation or handling and without loss through deterioration on the markets. An equal amount of other forms of food may thereby be released for exportation for the use of our armies and our allies overseas. Many millions of dollars may be produced and saved for investment in bonds or war savings stamps, and the children engaged in work will be benefited physically, mentally, and morally. Since the work will be done by children who would otherwise be idle, and on land which would not otherwise be used, there will be no cost except for supervision and direction and for tools, seeds, and fertilizers. Experience shows that the cost of these

does not exceed 10 per cent of the value of the food produced, and is often much less.

The Department of Agriculture has agreed to furnish to the Bureau of Education, for the promotion of this work, its bulletins and leaflets on gardening in such numbers as may be needed, and will ask its county agricultural agents and home-demonstration agents to use a part of their time in supervising and instructing teacher-directors when they have the ability and when this work does not take too much time from their other and more legitimate duties.

The States division of the Council of National Defense has promised to co-operate in raising money in State and local communities to pay the salaries of supervisors in places where this may be necessary. The National War Garden Commission will cooperate by donating in unlimited numbers its practical garden bulletins, and by printing for distribution at cost a daily record book which has been prepared by the Bureau of Education for keeping garden accounts.

But all this can be made effective only through the Bureau of Education, which, to enable it to stimulate and direct this work effectively, must have in the beginning approximately \$35,800, in addition to all funds which it now has, as is shown in the following table of estimates:

<i>Estimate of cost for promoting school-directed home garden work.</i>	
One director.....	\$4,000
One assistant director.....	3,000
Fifteen stenographers, typewriters, and mailing and filing clerks.....	18,000
One messenger.....	800
Typewriting, multigraphing, and addressographing ma- chinery and other equipment, and supplies and stationery.....	10,000
Total	35,800

Because of the very great importance of this matter, and because of the fact that whatever is done must be done very quickly, I have the honor to request that you give it your very careful consideration, and if it commends itself to you, that you ask the President to make available to the Bureau of Education for this use so much of his War Emergency Fund as may be necessary for carrying on the work until other funds are available through congressional appropriation or otherwise.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The honorable the SECRETARY OF THE INTERIOR.

Following this letter, and upon the request of Secretary Lane, President Wilson appropriated \$50,000 from the National Security and Defense Fund to promote school and school-supervised home gardening among the school children of America residing in cities, towns, and villages. Up to this time the field had been practically untouched by any governmental agency. In a few cities throughout the country, garden work had been undertaken by the schools and by civic organizations, but these instances were few in number.

Early in April, 1918, the following suggestions on plans of organization were sent to school superintendents and garden teachers and supervisors:

ORGANIZATION OF THE ARMY.

Number of members in a company: Ten to one hundred and fifty.

Age limit: Any school child, but preferably the more important companies should be enlisted from the pupils above the third grade.

Requirements for enlistment: The signing of an obligation card in which the pupil agrees to raise one or more food crops and to keep records of his work and the results, reporting them to the teacher or garden supervisor. These cards will be furnished by this bureau.

Officers: Each company to have a captain and one or two lieutenants, the latter depending upon the number of soldiers enlisted.

Insignia:

For the privates, a service bar with U. S. S. G. in red letters on a white background with a border of blue.

For the second lieutenant, the same bar with one white star in the border.

For the first lieutenant, the same bar with two white stars in the border.

For the captain, the same bar with three white stars in the border.

For the garden teacher or supervisor, similar insignia without stars, with blue letters and a red border.

Enlistment of existing organizations: Any organization of school children now doing garden work will be eligible to enlistment. Such organizations may keep their existing form, if they so desire and have the additional impetus of belonging to a national army fostered by President Wilson, the Secretary of Interior, and the Commissioner of Education. The aim of this army is to nationalize and unify the great work now being carried on among school children of America.

Five regional and one general director were chosen to organize and carry forward the work. The regional directors were selected because of their expert and practical knowledge of gardening and their extensive experience as garden and agriculture teachers. Their duties were to include the writing of garden leaflets in language and form suited to the boys and girls of school age, and adaptable to class organization. Each region was to be furnished separate leaflets. They were to meet climatic and soil conditions of the district to which they were to be sent. As an illustration, the southeastern region has five zonal districts, and separate leaflets were written for each. These garden lesson leaflets were highly appreciated by teachers who were able through their help to conduct companies successfully through the garden season.

A partial report made July 10, 1918, showed the following results:

1. One million five hundred thousand boys and girls responded to the call of the President and enlisted in the United States School Garden Army.

2. Twenty thousand acres of unproductive home and vacant lots were converted into productive land. This released an equal acreage used in truck gardening for the production of other foodstuffs more important for war purposes. It relieved transportation congestion through home consumption of home-produced foodstuffs.

3. Fifty thousand teachers received valuable instruction in gardening through the garden leaflets written by experts in this office and distributed from here. One million five hundred thousand leaflets were sent out.

4. Boards of education and other civic organizations were influenced to give financial and moral support to the school and home garden movement and to pay extra salaries for supervision and teaching.

5. Hundreds of thousands of parents became interested in the garden movement and worked with their children in home gardens. In Salt Lake City alone 5,200 mothers, representing 62 parental associations, actively supported food production in the schools.

6. Thousands of civic, commercial, and patriotic organizations became interested in the movement and gave it hearty support.

7. One and one-half million children were given something to do last summer; something that helped to carry the burden of their country in the struggle for freedom, something that helped them to build character, and something that appealed to and developed their patriotism.

8. Home and vacant lot gardening in cities, towns, and villages was dignified and made popular to a degree that practically insured it a prominent place in the school system of our country. It would be difficult to estimate the educational and material value of such results. No other movement in history promises so much in aiding the "back-to-the-soil" movement as this.

President Wilson made a second appropriation of \$200,000 to continue the work until July, 1919, and some changes were made in the organization.

A slight readjustment of territory assigned to the regional directors was necessary. The southeastern region was enlarged by adding West Virginia, Alabama, and Mississippi from the southern region. The southern region in turn was given Missouri and Kansas from the central section and Colorado and New Mexico from the western section. The five regional directors remain the same as before the new adjustment.

Twenty-five assistant regional directors were appointed. The duties of the assistant regional directors are similar to those of the regional directors, but are on a more intensive scale and in a more limited territory. They work under the direction of the regional director in a part of his territory assigned to them and make weekly reports to him.

Under this organization the United States School Garden Army is working for the season 1918-19.

CHAPTER XIII.

KINDERGARTEN EDUCATION.

By ALMIRA M. WINCHESTER,

Specialist in Kindergarten Education, Bureau of Education.

CONTENTS.—I. The kindergarten and the war.—II. Kindergarten practice.—III. Survey of the kindergarten of Richmond, Ind.—IV. Recent publications pertaining to the education of young children.—V. Kindergarten legislation.

I. THE KINDERGARTEN AND THE WAR.

With war in the world turning everything topsy-turvy, institutions and existing social conventions, formerly taken for granted, are now subjected to rigid inspection and their meanings sifted, in order that nothing useless may be permitted to cumber the earth when every bit of time, space, labor, money, and thought is imperatively demanded for carrying on the world business.

Side by side with the process of excluding the useless is going forward the process of uncovering the essentials in human institutions and making them yield up their wealth of possibilities. Education has thus been discovered. The school, as one of the chief instrumentalities of education, has begun to come into its own. Moreover, since babies are assuming a new value in the whole scheme of democracy, the kindergarten in its relation to the school and to the home is regarded afresh with respect and expectation.

The kindergarten unit for the refugee children of France.—One very direct form of war service is that being provided by the kindergartens of America for the task of restoring to normality the little children living in the refugee colonies of France.

The service undertaken by the American branch of the International Kindergarten Union is that of equipping and supporting a kindergarten unit in conjunction with the children's bureau of the American Red Cross in France, to work under the auspices of the citizens' committee for the conservation of the children of America during the war. Miss Fanniebelle Curtis is director and Miss Mary Moore Orr associate director of the unit.

Miss Curtis and Miss Orr, after visiting the devastated regions of France, returned with the strong conviction that it is trained

kindergartners who are needed to relieve the misery of the children and to give back to them some of the joys of normal childhood through plays, games, stories, handwork, and other educative activities.

The pitiful condition of the little ones is described by Miss Curtis in an appeal addressed to the members of the International Kindergarten Union. Subjected to the horrors of bombardments and gas, bewildered and benumbed by the necessity for silence in the presence of the frightful boches, undernourished, apathetic through suffering so many terrors, these unfortunate children are in danger of losing their sanity unless something immediate is done for their restoration. In Miss Curtis's own words:

They have been in the gassed regions, they have been lost on the fields of Flanders, they have fled from their burning villages, they have been actual prisoners with the civilian population back of the enemies' lines.

The Germans are sending back from the prison camps thousands of civilians, keeping them in Switzerland for a certain time and then allowing them to return to France. At Eviansles-Bains, the distributing point, child refugees are coming in at the rate of 500 a day. Miss Curtis declares:

It is a tragedy that has no parallel in the world's history. The children are being placed in colonies, in chateaus, in convents, in convalescent hospitals until victory with honor is won. They need songs and stories and the joys of childhood restored, and more than all they need mothering.

Every foreign mail brings more pitiful stories. It is childhood's darkest hour.

The kindergartners of America have raised over \$35,000 to defray the expenses of equipping and sending kindergarten teachers to France. A number of teachers have already sailed, and others will follow as soon as funds for the purpose can be raised.

Conservation of the children of America.—To conserve the well-being of American children is properly regarded as a form of war service. The campaign, organized by the Children's Bureau of the Department of Labor, for saving the lives and bettering the health of 100,000 babies during the current year, has been earnestly supported by parents and teachers. Kindergarten teachers have made it their business to assist in the work of weighing and measuring young children, and recording the facts brought out by the physical examinations. In some instances follow-up measures are being instituted in order that immediate results may be secured for the kindergartens. This is the case in Worcester, Mass., where the supervisor of kindergartens issued to the teachers the following instructions:

While the baby measuring and weighing records are available in your school building, will you please make a list of the names of all children in your school district who will be of kindergarten age this coming school year? Send

to me the number—figures only—you discover. I will then take some steps to help you bring those children in promptly in September, 1918.

This will be an effort to avoid the dropping-in-at-any-time that so pulls down our kindergarten organization and work.

Another form of service in which kindergartens have engaged during the past 15 months is that of cooperating with those social agencies, in their respective communities, whose concern is with child welfare. To provide wholesome kinds of interest and activity in connection with the social side of child life, and thus to protect childhood from some of the blighting influences of war conditions, kindergarten teachers are spending their nonteaching hours in telling stories to groups of children, supervising some of the play in the small parks and public playgrounds, directing children in the cultivation of back-yard gardens, organizing excursions to woods or parks convenient to the neighborhood, and other similar activities. Nor are the teachers unmindful of their responsibility for seeing to it that children are gathered in and kept in school nor of their further responsibilities toward the mothers, especially in regard to instruction in hygiene, care and wise purchasing of food, and more efficient ways of living.

Kindergarten practice itself is influenced through the new insight, for teachers realize as never before the significance of the laws which govern all right association of individuals. Self-activity must always be the guiding principle of the kindergarten, but the individual is to be developed as a member of a group; as such he must conform to, must obey the laws which rule the whole, and subordinate self-gratification to the good of the whole. Since the children who fail to learn this lesson early in life become weaklings, self-seeking individuals, and moral failures, kindergarten teachers are more consciously than before directing the children in exercises which call for instant response in concerted action and for conformity to the desire of the group; also in organized plays which demand self-subordination and teamwork, and which make for helpful, self-controlled children.

The kindergarten as a factor in Americanization.—It is no new thing for the kindergarten to provide some of the means for transforming aliens into Americans. A permanent argument for kindergarten extension is that the children of the foreign born by means of kindergarten training are familiarized with English before formal school work sets in, and time is thus saved for the grade work. Furthermore, home visiting and holding mothers' meetings have been part of the kindergarten teachers' business and have been a factor in bringing the foreign family into an understanding and appreciation of the customs and standards of the new country.

The unique element in the relation of the kindergartner to the foreign family is that she reaches the members in a normal way before their home life has been disturbed. When the district nurse or the social worker comes to the family, it is at a time when economic pressure or sickness has forced them to the position of want, in which they are discovered.

In recent years the development of parent-teacher associations has tended to absorb the kindergarten mothers' meeting into the larger body, and the practice in public-school kindergartens of requiring kindergarten teachers to teach in the classroom both morning and afternoon has rendered it difficult for the teachers to visit in the homes as they used to do. The timid, non-English-speaking woman, conscious of being different from her neighbors, has been reluctant to attend the larger, more formal school meeting, and has thus missed the participation in community affairs and the opportunity for learning the language which her children are using in their daily school life and which her husband has acquired through the night school, the shop school, or the lodge school.

One result of this situation is that the mother, the center of the household, is neglected and often looked down upon by husband and children, who have outstripped her in the acquisition of the tools of citizenship. As the distance between them increases she grows apathetic, antagonistic, and reluctant to rouse herself to learn the language and customs which would help to bridge the distance. This is the opportunity for the kindergartner. Efforts are now being directed toward the establishment of more kindergartens, especially in regions where large numbers of aliens are employed in necessary industries, since the barrier of noncommunication can thus be removed while the children are young and unconscious of any difference between themselves and their American neighbors; and toward the restoration to its former place and function of the kindergarten mothers' meeting, and the development of the "door-step" meetings, since in them can be found the machinery for a fine give-and-take relationship between old Americans and more recent Americans.

Kindergartens in Ordnance schools on Government reservations.—Government reservations for industrial plants are necessary accompaniments of the present emergency and are being developed under the direction of the industrial-service section of the Ordnance Department. Wherever the needs of the workers and their families require it a new town is being created, with suitable houses, school buildings, church buildings, Y. M. C. A. buildings, and other facilities for wholesome, clean, social living. As an integral part of the school system kindergartens are being provided, and teachers are sought who possess qualities essential to successful community co-

operation. Cottages or teacherages are being built for the housing of the teachers. Each school has one room planned purposely for a kindergarten, and the equipment and supplies are to be excellent in quality.

These reservation kindergartens offer to the teachers chosen to direct them rich opportunity for the best kind of patriotic service. Comparatively few kindergartners can go abroad at present for service in France, but here in America is an opportunity to do a vital and far-reaching piece of work. Not only the school population is to be educated, but the entire community as well. There will be playgrounds and other forms of recreational activity which the kindergarten teachers will be peculiarly fitted to direct.

Schools for the colored children, as well as for the white, will be established on the reservations near Charleston, W. Va.; Nashville, Tenn.; and Sheffield, Ala.

Retaining the name "kindergarten."—It was to be expected that some discussion on the rejection or retention of the name kindergarten would follow the entrance of the United States into war with Germany. That the institution itself has become thoroughly naturalized there can be no doubt. No other phase of education is more completely democratic and American than the kindergarten. In this respect the prophecy of the founder has been fulfilled that in America, the new world where new life was and is unfolding, the new education of the human race would take firm root. In Germany, the geographical birthplace of the kindergarten, little more than the outer form and the name is discoverable; the essence is missing. The kindergarten is not at home in Germany.

The edict of the Prussian Government in 1851 forbidding the establishment of kindergartens is tacit evidence that a system of education for the people based upon the principle of self-activity, freedom, and respect for individuality was considered a dangerous foe to the success of military autocracy. It was charged at the time that the tendency of the kindergartens was toward atheism and revolution, an indictment that inspired the Berlin comic paper to point out as objects of suspicion "those three-year-old demagogues with their inflammatory speeches, those red-handed revolutionists in swaddling clothes."

The contention of those who desire to change the name kindergarten is that, since the institution is truly Americanized, the name should undergo the same process; also that the new name should bear in it the suggestion of organic relation with the school system. But the clumsiness and ineptitude of the substitutes which have been suggested make it difficult to believe that any of them will be adopted.

"Children garden" or "child garden," the literal equivalent in English for kindergarten, is acceptable in so far as it retains the description of the institution; but the sound of it is awkward and disagreeable to the ear.

"Subprimary" is a term which has been offered, and in a few systems adopted, because it is said to carry out the idea of a real connection between the kindergarten and the rest of the school organization. The objection to it lies in its failure to define the essence of the kindergarten; "sub" makes the institution a mere annex to the primary grades and expresses only an external relation.

"Primary circle" has been suggested on the ground that the present name emphasizes the aloofness of the kindergarten department from the school as a whole, whereas primary circle is expressive of the truth that the aims, principles, and ideals of the kindergarten are basic of what is to follow in child training. The reason is good, but the name offered is not a success. In school vernacular "primary" is limited in its meaning, and has become synonymous with first grades; primary circle, therefore, being narrowly interpreted, would cause the institution to be regarded as a side issue externally related to the first grade.

"Baby nest" is the designation chosen in place of kindergarten in Italy. The description of the baby nests given by Signorina Amy Bernardy at the Pittsburgh meeting of the National Education Association leads to the conviction that, according to the American understanding of things, these institutions would be classed as day nurseries.

A passing observation should be given to the terms "school of childhood" and "house of childhood." The former name was selected to designate the department for the youngest children in the school of education of the University of Pittsburgh. The projectors of the school wished to be free from the limitations which would naturally be imposed upon the experiment if it bore the name kindergarten, and from having judgments passed upon the work according to kindergarten standards. The "house of childhood" is the name selected by Dr. Montessori to describe the type of educational institution devised by her. The classes were originally established within the tenement houses erected by an association for good building in Rome, and were intended to provide for the early training of the children of the workmen housed in the tenements.

Among the members of the International Kindergarten Union it is generally felt that "kindergarten" should remain. No other word so aptly and euphoniously describes the thing signified, an organization in which each individual child is regarded as a living organism or plant whose inner nature is capable of unfolding its richness in response to a favorable environment and under the gardener's care.

II. KINDERGARTEN PRACTICE.

Turning from the name to the institution itself, it is evident that modification in practice is steadily proceeding. Aside from the oft-cited illumination coming from "the light of modern psychology and child-study," several factors are contributing to bring about change of methods as well as of materials. Among these are:

(1) The need for giving to primary teachers and supervisors a clear exposition of kindergarten principles and methods.

(2) The new faith in democracy, expressing itself educationally in new faith in children's ability to direct their own activities and to organize their own groups.

(3) The friendly attitude toward experimentation with methods and materials, coupled with the "newly acquired devotion to the checking of results."

(4) The increasing number of kindergarten teachers who each year study education in colleges and universities.

Testing and measuring progress of kindergarten children.—Until recently it has been urged that the difficulties in the way of securing a satisfactory measure of the results of kindergarten training are insurmountable, and that the best things that happen to children because of a year or so in kindergarten can not possibly be reduced to terms of objective measurement. In answer to this, Dr. W. C. Bagley, in his introduction to *The Kindergarten in Japan*,¹ points out that, while the ultimate effects of certain educational doctrines may be difficult to predict and the immediate effects difficult to determine and evaluate, "these are assumptions neither to be made lightly nor to be used as a cloak for mental inertia. The very difficulty should rather be a spur to the devising of means toward accurate prediction, exact measurement, and just evaluation."

In response to the spur prick, a beginning has been made during the past year of a valuable type of work. Under the leadership of Miss Alma L. Binzel, of Minneapolis, who devised a tentative set of tests of children's abilities, a group of experienced kindergartners undertook to give the tests and record the results after a uniform manner. Certain typical kindergarten activities were selected, appropriate tests for their measurement were determined, and groups of children were tested at the beginning and again toward the end of the school year. The progress in ability was recorded on a card devised for the purpose, and a summing up of the findings was made by Miss Binzel.

The activities selected for the project were those expressive of the following forms of ability: Physical control; language, as to range

¹ *The Kindergarten in Japan*, by Tsunekichi Mizuno.

of vocabulary and ability in oral composition; musical expression and recognition; constructive ability as shown in both temporary and permanent constructions; skill in graphic presentation; scientific aptitude as indicated by identifying objects, answering questions as to use and source of materials and as to processes; and mathematical aptitude as shown by using number, counting, and recognizing number groups.

It was the opinion of Miss Binzel that, in spite of handicaps, the results of the preliminary testing justify the continuance and expansion of the work; that in due course of time it will be possible to arrange scales of kindergarten work just as spelling, handwriting, arithmetic, and composition scales have been devised for grade work; that ultimately, norms will come into existence that will be valid in the measurement of progress due to kindergarten education; and that while growth in certain qualities of character does not readily lend itself to quantitative expression, it is legitimate to draw inferences as to developing personality from the scientific data furnished by the tests.

Waste between the kindergarten and the primary school.—Progress has been made in the study undertaken by the committee on minimum essentials in kindergarten and primary grades of the subject of what and how much of the kindergarten's contributions to the child's development are utilized in his subsequent school years. The report¹ made by the committee chairman, Miss Annie Moore, treats of investigations made in the field of arithmetical concepts, of literature, and of the use of free oral expression in first grade.

A series of tests in fundamental arithmetical concepts was used to measure the abilities of kindergarten and nonkindergarten children in order to ascertain whether children entering first grade after a year of kindegarten training are stronger in arithmetical concepts than children with no kindergarten training; also, if there is a difference in ability to learn, whether it is due to difference in age. The tests were applied once at the beginning of the term for initial ability, and again at the close for amount of improvement.

The score showed that the kindergarten children made a higher record of *points* in both tests. The *rate* of improvement was about the same in both kindergarten and nonkindergarten children. The *time* required by the nonkindergarten group was less in the first test; in the second test the time required was the same for both groups. In regard to age, the results indicated that the kindergarten pupils, even though slightly younger than the nonkindergarten pupils, made higher scores in points.

A comparative study of the literature used in kindergartens and first grades was made in order to determine the amount of dupli-

¹ Proceedings of the International Kindergarten Union, 1917.

tion occurring and the degree of progression secured in the subject. The results of the study show, among other features, that kindergarten and first-grade teachers are quite at one in regard to the use of nursery rhymes; that in the selection of literature, first-grade teachers in general choose whatever gives the best material for teaching reading, thus subordinating literary values to the technique of teaching beginning reading; and that in some instances kindergarten teachers send forward to the first-grade teachers a list of stories that have been used in the kindergarten.

The study of the use of free oral expression in the first grade was based upon the principle involved in the fact that "normal children make remarkable progress in the mastery of their mother tongue during the preschool period, and that this mastery is attained through the abundant and free use of speech in purposeful and significant ways." Increased language ability among kindergarten trained children is a recognized result, due to the freedom permitted in the kindergarten and the encouragement of conversation about objects and experiences of immediate and personal interest. Similar opportunities for free, natural, oral expression are advocated for primary grades by numbers of schoolmen; but that theory is ahead of practice in this respect is made apparent by the results of the study; for the tendency is clearly toward silence on the part of the children in primary grades, a condition which prohibits their learning how to use English fluently, intelligently, and correctly, as far as school experience is concerned.

The course of study in the kindergarten.—For the purpose of furthering the better understanding of kindergarten aims and methods by primary teachers and supervisors and providing constructive suggestions for the many kindergarten teachers who have to work without a supervisor's assistance, a group of kindergartners has undertaken to formulate the kindergarten curriculum and the standards involved therein. The need for a sane presentation of a sane curriculum in published form is emphasized by the fact that strange, extravagant practices are being introduced here and there under the name of "experimentation." Clear ideas as to essentials are evidently necessary to enable the "experimentors" to discriminate between freakish novelty and that which is validly original.

In preparing their formulation the committee of kindergartners have treated the curriculum in its twofold aspect of content or subject matter and forms of expression or activities. The terms "oral expression," "manual activities," "drawing," "physical training," "nature study," and "music" have been adopted so as to be in accordance with the usage in formulations of primary-grade curricula.

The various divisions of the subject are discussed as to: Aims, general and specific; subject matter; methods; attainments. In the

section devoted to language, wrong as well as right methods are illustrated in order to throw into relief some faults commonly committed.¹

Results of experiments with self-organized groups.—As evidence of the new faith in children's ability to initiate and direct their own play and work activities, various forms of experimentation are in progress. Those in charge of these experiments undertook the work firmly believing that self-activity means what it says; that the spontaneous play of children is educative; that children are rich in purposes at present and are not merely potentialities; that they should live in the present up to the best of their ability; that they should be measured by their intelligent cooperation, their ability to initiate and control situations, and their power of self-control; that in groups organized by the teacher the leadership is one-sided, the adjustments are made by the teacher, the plans and problems are set by her, and opportunities for experimentation or invention are meager.

While no scientific report on the experiments is as yet forthcoming, some conclusions appear in a report presented at the International Kindergarten Union convention (1917), by Miss Faye Henley. Miss Henley points out that a "spontaneous group" is a free organization in regard to numbers. Sometimes one child will work alone; sometimes groups of two or three will work together; and sometimes the entire group is included. An "organized group" is one organized by the teacher and held together by her.

The conclusions reached so far are:

(1) That the spontaneous or self-organized group provides for the practice of democratic principles; that the children make their own social adjustments and find opportunity for leadership, initiative, and experiment.

(2) That the limitations in self-organized group work are that some children merely repeat what pleases them, without progressing; some children do what is easiest for them; some become capricious and even lawless.

(3) The place of the teacher in the organization thus becomes clear. She must keep the balance, help to improve standards, be ready to give expert advice, stimulate lagging interest by bringing in new aims or new use of materials.

III. SURVEY OF THE KINDERGARTENS OF RICHMOND, IND.

Of recent years a number of surveys have been made of the school systems of various cities, and the kindergartens, being included, have come in for their share of comment; but to the kindergartens

¹ The report will be published shortly as a bulletin of the Bureau of Education.

of Richmond, Ind., belongs the distinction of being surveyed as a system of kindergartens, and by a kindergartner, Miss Alice Temple, of the school of education of the University of Chicago.

The survey was undertaken with a view to achieving a closer co-ordination between the kindergartens and the grades. The report¹ is a most valuable document containing excellent suggestions for groups of kindergartners who may wish to conduct a survey of their own kindergartens.

In carrying on the investigation Miss Temple visited each of the eight kindergartens twice, and visited the first-grade classes; held conferences with the teachers both as groups and as individuals; examined the course of study for kindergartens printed in the superintendent's report for 1912; studied information supplied by the superintendent; and examined the written answers to questions contributed by kindergarten teachers and first-grade teachers.

The report is organized under the following sections: The kindergartens; the room equipment; the teachers; the relation between the kindergarten and the first grade; and the curriculum and methods of the kindergarten.

In regard to the kindergartens, Miss Temple found the prevailing social atmosphere wholesome and the relations between children and teachers all that could be desired; but in some of the classes the children have been trained to respond automatically to a series of piano signals and to certain artificial devices for securing attention. This method tends to produce dependence upon particular forms of guidance rather than intelligent self-control.

Commenting upon the room equipment, the report recommends more growing plants and some form of animal life. Of the materials for play and handwork, the criticism is that they are inadequate. The kindergartens are supplied with the "traditional" materials. It is recommended that larger blocks, together with boards of varying lengths, be added to the equipment, in order that the children may make buildings and furniture for their own play use. A "kinderhaus" or five-fold screen to inclose a space for a playhouse is also recommended.

According to present-day theory, materials are primarily valued as means through which children may give expression to their ideas and carry out their play purposes. This means that any of the traditional materials may be discarded and more adequate ones used. Among these more adequate supplies are large-sized and heavy papers for construction work; soft wood cut in blocks and boards, together with hammers and nails for construction; easily handled textile materials for weaving; and materials for simple and crude dolls' clothes.

¹ Supplementary educational monograph of the School Review and Elementary School Journal, Vol. I, No. 6.

Small toy animals, small dolls, toy utensils, and dishes to use in connection with building plays are recommended.

In respect to the teachers and their needs, it is recommended that a well-trained and thoroughly efficient supervisor of kindergarten and primary grades be secured; that the kindergartners be encouraged to attend summer sessions and pursue further study in kindergarten education; and that a more profitable use be made of the afternoon hours of the kindergartners. It is pointed out that the constructive movement within the kindergarten during the past 10 or 15 years has made rapid progress, and that kindergartners should put themselves in the way of further study at one of the progressive normal schools or universities in order to keep pace with the best developments in kindergarten practice.

The need for the continuity between the work of the kindergarten and that of the first grade is apparent. It is suggested that the teachers and supervisors work out a kindergarten-primary curriculum which shall provide for continuity in each of the subjects common to both: Community life, industrial and fine arts, language, music, physical education, nature study, number work.

A number of first-grade teachers, while recognizing the independence of the kindergarten-trained children in many directions, find them too dependent on the teacher's help in handwork. If kindergarten teachers would plan simpler forms of handwork and be satisfied with cruder products, they would be able to develop in the children a desirable degree of independence.

The criticism by the grade teachers that kindergarten children want to talk and play instead of work is a criticism of the first grade rather than of the kindergarten. Two reasons for this so-called restlessness are that the seat work in the first grade does not call forth the thought or the effort of which six-year olds are capable, and that not enough time is allowed for active play.

Commenting upon the curriculum and methods of the kindergarten, Miss Temple points out that too great quantity and variety of intellectual material was introduced within a given period of time, and the subject matter was unwisely utilized to present ideas and ideals which belong not to the kindergarten but to a later stage of development.

She criticizes as devoid of real thought on the part of the children lessons which begin with a series of exercises dictated by the teacher the purpose of which is to help children take some simple blocks from a box, and are continued by directions as to certain moves with the blocks, and are finished by returning the blocks to the boxes in an exact manner. The definition of a right or wrong result in such a lesson is not determined by the fitness of the object made for the use of it, but whether or not it duplicates the form made by the

teacher. It is pointed out that a chance should be given for testing the efficiency of the objects constructed and that a motive beyond a desire to please the teacher should be given to children's work.

The report goes on to deal with each form of activity in the kindergarten, drawing, language and literature, plays and games, and music, in every case offering constructive and stimulating suggestions for the improvement of subject matter and methods.

The spirit in which the Richmond survey was undertaken, the friendly cooperation with which it was carried on, the carefully prepared report, with its thoroughly practical and constructive recommendations, all unite to commend not only this particular piece of work, but also this type of work as worthy of being widely applied to kindergarten systems.

IV. RECENT PUBLICATIONS PERTAINING TO THE EDUCATION OF YOUNG CHILDREN.

"PLAY LIFE IN THE FIRST EIGHT YEARS."¹

Miss Palmer has carefully listed games and plays that are types of those best suited to the gradually developing powers of typical children of the ages from 1 to 8 years. Even a casual reader can not fail to get from these lists and explanatory descriptions a logical idea of the mental unfolding of the small child and the reaction he requires from his environment to further his growth into a well-balanced, useful citizen of high ideals.

The book is neither technical in phraseology nor difficult in style and is so definite in its portrayal of the type of games needed by the child at various stages in his development that it should be of great value, not only to the trained teacher, but to the parent or nurse or social worker who has the supervision of small children.

"PRIMARY HANDWORK" AND "ILLUSTRATIVE HANDWORK."²

The worth of the first-named book lies in the value-standard it sets. It does not view the primary curriculum as a certain amount of knowledge to be acquired by the child more or less painfully in preparation for the next higher grade; it sees each period of the child's development as a time seething with childish interests and enthusiasms which, rightly used, make of each school year a triumph of achievement, development, and happiness. The problems of construction are approached from the child's point of view and interest. The standard of the work is measured by the child's ability to do and think. The child's growth is shown by his increased ability to judge his efforts and intelligently measure his successes. This produces what Dr. Dewey calls a "child who has something to say rather than

¹ By Luella A. Palmer.

² By Ella Victoria Dobbs.

having to say something." Miss Dobbs shows clearly the way in which the artificial gulf between the kindergarten and the primary grades can be made to disappear.

In the second-named book are offered practical working outlines upon which the teacher may build. The object of the book is to prove by means of work already tried in actual schools:

1. That illustrative handwork can be used profitably as a method of study by giving the children something to do which they will wish to do, but which can not be done successfully without a practical knowledge of the subject matter to be studied.
2. That illustrative handwork can be used profitably as a method recitation by requiring the children to make something which they can not make successfully unless they have gained clear and definite ideas of the subject which has been studied.
3. That work of this kind not only has a place as a regular form of study and recitation, but that it can be done without exceeding the limit of time allotted to the subject.
4. That the equipment and materials are easily obtainable in any school.
5. That work of this kind may be carried on in the regular classroom.
6. That such methods may be used by teachers who have not been trained in the manual arts.

"A COURSE FOR BEGINNERS IN RELIGIOUS EDUCATION."¹

Miss Rankin, a trained kindergartner, has brought her knowledge of child psychology and the knowledge gained from actual contact with many children to the problem of making a year's course of Sunday-school lessons that will make for a better feeling, thinking, and doing in the life of the little child, and that will also be quite simply and definitely stated, so that the average untrained Sunday-school teacher may use them literally as the supporting framework for her work.

"THE USE OF THE KINDERGARTEN GIFTS."²

The use of the kindergarten gifts carries from cover to cover a plea for a wider knowledge on the part of the teachers of every material to be used, and a greater insight into the process of the growth of little children. The book is of particular value to the recently graduated kindergarten student who has had a limited opportunity for actual teaching experience, and to the teacher who emphasizes organized group work in her school.

BULLETINS NOS. 1, 2, 3, 4, AND 5: BUREAU OF EDUCATIONAL EXPERIMENTS.

To quote from the preface in one of the bulletins:

The Bureau of Educational Experiments is made up of a group of persons who are engaged in first-hand efforts for improving the education of children, and who have all shared in the general movement that has brought about a

¹ By Mary Everett Rankin.

² By Grace Fulmer.

more scientific study of them. They feel that the development of some more comprehensive plans of utilizing the results of the recent interest in "free education" is the next step, and that it depends essentially upon securing a closer cooperation among experimenters.

The bureau aims to accomplish these ends by giving support to present experiments, by initiating new experiments, by collecting and making available for public use information about the whole field of experiments in education, and by hastening the introduction of newly acquired methods through actual teaching experiments.

The first bulletin is entitled "Playthings"; the second is a study of Animal Families in Schools; the third, fourth, and fifth bulletins describe the kind of work being done at The Play School, by Caroline Pratt; at The Gregory School, by Margaret Naumburg; at Teachers College Playground, by Mary Rankin; at The Home School, by Mattie Bates; and at "Stony Ford School," by Mr. and Mrs. Hutchinson.

"SELECTED LIST OF STORIES."

The literature committee of the International Kindergarten Union has published an excellent list of stories to tell to children in kindergarten, first, and second grades. In presenting the list the committee point out that extended lists prepared by libraries and other compilers are easily obtained; and for that reason it was thought best to confine the committee's endeavors to the preparation of a limited list of stories of distinctly literary quality, each story having a proved value and interest for children.

With the title of each story are listed several books in which different versions may be found.

V. KINDERGARTEN LEGISLATION.

The excellent mandatory-on-petition law has yielded such good results during the past five years in California that friends of the kindergarten have been stimulated to secure the passage of a similar law in other States. Their efforts have been successful in Maine, Oregon, Tennessee, Washington, and Texas.

In Maine the superintending school committees are required upon the filing of a petition coming from the parents or guardians of 30 or more children between 4 and 6 years of age, living within a mile of a public elementary school, to maintain a kindergarten as a part of the common-school course, unless otherwise instructed by the city or town. The kindergarten may be discontinued if the daily average attendance falls below 15 children. In respect to kindergarten teachers the law provides that no person shall be allowed to teach in any kindergarten who has not completed at least a two-years' course in training and received a certificate or diploma from a recognized

kindergarten training school, approved by the State superintendent of schools.

In Oregon the peculiar provision of the kindergarten bill is that the establishment of kindergartens is confined to the city of Portland, the law stipulating that not more than five and not less than three kindergartens must be installed during the year.

The law of Tennessee is a permissive one—that is, cities and towns may establish kindergartens, but must support them by means of local taxation.

In the State of Washington the enactment provides that the kindergarten shall be a part of the school system and be supported just as the primary and upper grades are supported.

The Texas law is similar to that of Maine. A noteworthy feature of the campaign was the hearty support given to the measure by the officers of the State department of education. Emphasis also was placed upon adequate provisions for well-trained kindergarten teachers.

In a number of other States the Federation of Women's Clubs, the National Congress of Mothers, and other women's organizations are taking an active interest in State campaigns for more public-school kindergartens.

New kindergarten training schools.—Closely connected with the legislative successes in Texas and in California is the announcement of the opening of three new kindergarten training schools. The College of Industrial Arts, Denton, Tex., has organized a department of kindergarten education, with Miss Mabel Osgood, formerly of the Milwaukee State Normal School, in charge; and in the Sam Houston Normal Institute, Huntsville, Tex., a kindergarten department is being incorporated. Miss Grace Fulmer has opened a school in Los Angeles, Cal. Children's classes in kindergarten and primary work and a department of kindergarten and primary education for young women are included. Emphasis is placed upon open-air work.

A two-year kindergarten training course was organized in 1916 in the State normal school, at Tempe, Ariz.; a training class, under the direction of Miss Laura Fisher, was opened in Boston, the same year; and Miss Laura Cushman organized a training school in Miami, Fla.

Kindergarten departments are also being instituted in connection with the schools of education in the University of Nebraska, at Lincoln, and in the University of Missouri, at Columbia.

Appropriation for kindergarten education.—By no means the least significant event of the past year is the appropriation granted by Congress whereby Federal support has become available for the important field of kindergarten promotion and practice. Two specialists in kindergarten education constitute the staff for the present.

CHAPTER XIV.

HOME ECONOMICS.

By Mrs. HENRIETTA W. CALVIN and CARRIE ALBERTA LYFORD,

Specialists in Home Economics, Bureau of Education.

CONTENTS.—Introductory—Home economics in the public schools—State supervision of home economics—County supervision of home economics—State normal schools—Colored schools—Home economics in colleges and universities—Effect of war on college courses—Practice homes—Practical application of food courses in the management of lunchrooms, cafeterias, etc.—Smith-Lever extension work—New phases of home economics—Child welfare courses—Newly established and reorganized departments—Surveys—Organization of women interested in home economics education—Home economics and national service—Legislation relating to home economics.

Progress in home economics education has been marked in recent years. To the normal rapid increase in the number of high schools offering courses, the extension of systematic training in home making into the lower grades, the establishment of new courses in liberal arts colleges, and the more adequate support of departments previously organized has come increased impetus due to Federal and State legislation and to the recognition by war committees of their need of specially trained home economics women.

Knowledge of the importance of training in household arts has not been confined to the United States.

Queen Mary, of Great Britain, issued an appeal to English teachers to take up the study of home economics since the demands for teachers of "domestic subjects" was so much greater than the supply. She emphasized the increased need of these teachers for the period of readjustment after the war.

A leading English educator states:

In view of the development of domestic training which may be anticipated both in elementary and technical schools after the war, in the interests of national health and national economy, there is reason to think that, so far from there being a surplus of teachers, there is more likely to be a difficulty in obtaining sufficient trained teachers to meet the demand for them which must arise.

The secretary of the Bombay provincial advisory committee, in requesting information from America, states that "there is a growing desire here to establish good schools for the teaching of domestic science and household arts."

From New Zealand come requests for the names of home economics women who can be secured to organize and administer the home eco-

nomics instruction of that country, thus exhibiting an increased public interest in this type of school work.

Santiago, Cuba, questions as to the organization of instruction in "maternal schools" for young girls, stating that it has been proposed to enact a law establishing these in that Republic.

One of the leading normal school men of Japan visited the home economics department of the leading colleges and universities in this country because of interest in home making as a subject to be taught in the schools of that country.

The Ontario Agricultural College can not accommodate all who wish to come to Macdonald Institute for home economics training, and many desire home economics training who can not be spared from home. The college, therefore, is extending the usefulness of Macdonald Institute by opening branches here and there in such communities as are willing and able to cooperate.

Several of the missionary boards are asking for domestic science teachers in various countries, among them China. One call has just come from the Woman's Union Missionary Society, 67 Bible House, New York City, for a domestic science teacher in the school of the society in Shanghai, China. An opportunity is presented not only to teach domestic science to Chinese girls, but to train Chinese young women as teachers of domestic science, so that they will go out into the public schools.

HOME ECONOMICS IN THE PUBLIC SCHOOLS.

Courses of study and methods of teaching have been greatly modified by war conditions. The substitution of Red Cross and relief sewing for the usual projects of prewar times has so greatly improved teaching in textiles and clothing that there is little reason to believe there will be a reversion to the older type of projects after the close of the war period.

It has been possible to teach the effective use of the sewing machine in the fourth and fifth grades, to increase speed greatly, and at the same time secure a high standard of workmanship in sewing classes; to place responsibility upon children not heretofore considered mature enough to take any initiative, and to maintain interest in class work independent of personal possession of articles worked upon.

The sewing classes in the public schools of Chicago made 250,000 garments for Red Cross and relief work in the winter of 1917-18, and in all cities of the United States the production was in almost like proportion to the number of children in attendance.

The exhibition of children's ability in these lines is resulting in an entire change of course of study. More work of commercial value will hereafter be done; more speed will be attained; and more funda-

mental principles of good taste, good hygiene, and good economics will be taught.

The modifications in food courses have not been so readily adopted. This has been due to many complicating factors. Equipment now in use has been of a kind not easily adapted to new laboratory practices; cooperation of principals and superintendents of school lunches has not always been secured; there has been difficulty in articulating school work with the home life of the child, so that when it was desirable to secure food supplies from the home and return the cooked product to the home, parental approval has been withheld.

The changes in food courses have usually been along the lines of teaching the use of food conservation recipes, and explaining to the children the meaning of food conservation rules. Many home economics teachers have gathered the mothers into regular classes and instructed them in food preservation and food conservation. The following material has been gathered by a supervisor of home economics :

1. In one of the large private schools in St. Louis all advanced work for the older girls consists of Red Cross work in dietetics and the girls take the Government examinations at the end of the course.

2. At the North Bennett Street Industrial School the following report is given of the work in the school :

Substitution of entire wheat, bran, graham, cornmeal, and rye wherever it is possible in quick and yeast breads, gingerbread, and inexpensive cakes.

Substitution of oleomargarine, mazola, salt pork for butter, and effort made to use as little as possible. Substitution of leguminous vegetables, nuts, cheese, and fish for meats.

No meat up to the present time has been served in our lunch room. For the past two weeks all desserts requiring sugar have been replaced by fruit salads, plain fruit, dried fruit dishes, cakes and puddings sweetened with molasses and sirups.

Substitution of molasses and sirups for white sugar in all desserts possible.

Much more drill and instruction in use of substitutes and balanced menus than before.

3. The School of Domestic Science at the Young Women's Christian Association in Boston reports the following changes in the work :

The regular textbook, "Menus and Recipes for Fifty," is not used except for meats and vegetables. New recipes are being worked out to meet the Government requirements. As in all other places, they are emphasizing the reduction of the amount of meats, sugar, wheat, animal fats, etc. At their breakfast, which is prepared by the students in the domestic science class for their family of 50, their main course has been omitted in order to meet the situation.

4. At the Practical Arts School in Boston, which is an entirely different type of school, the following summary of work is given :

We plan first to adhere as closely as possible to our former course of study, believing that in an educational institution the pupils must still be taught the underlying principles of cookery.

Second, we do this, however, by using for the illustrations of those principles, so far as possible, the foods recommended as substitutes by our food administrator; for example, vegetable oils in place of animal oils; rye and other dark flours in place of wheat.

Third, to keep closely in touch with the food situation as to supply prices and to use these topics in our feed study and dietetics classes. To emphasize the

need of conservation along the lines of time, energy, health, fuel, and clothing, as well as in foodstuffs. To keep the prices in our lunch room at the lowest possible level for obvious reasons. So far there has been practically no increase over former prices except in the case of rolls or muffins, and butter.

To observe carefully the meatless and wheatless days advocated by the Government. To serve little cake, no frostings, few sweet puddings, etc., and to omit extra sweetening wherever possible.

To encourage our pupils to give their time freely outside of school to patriotic enterprise. To this end they assist every day in the Liberty Bread Shop, Food Facts Bureau, and our own relief work.

In the Cambridge Trade School they are preparing nearly 100 quarts of corn chowder, which they are selling to the pupils at 11 cents a quart. This is taken into the home with the card stating the food value of the dish, to make the parents realize that the school is trying to give the girls practical work which should be of real value in their own homes.

The Vocational School for Girls in Brookline submits the following report on the work being done in regard to changes in food courses:

The work has been subject to change without notice almost, as various needs have seemed to rise. We have worked with corn meal and other corn products, with rye and rice and oatmeal, with substitutes for sugar even before the acute need was thrust upon us from the impossibility of obtaining sugar. We have worked upon the substitute sweets earlier than we should otherwise have done, both because of the needs for supplying to our own pupils legitimate and desired sweets, to lessen, if possible, the use of those not allowable; and also because the girls have wished to pack boxes for their brothers and friends in France and to aid school sales for war causes. We are teaching the use of substitute fats, and the elimination of the use of fat in cookery, of course! We are laying stress upon the various winter vegetables as savers of other foods and upon the use of fruits and ways in which the canned foods may be well prepared and served.

Some teachers of food classes have been able to establish cooperation enterprises. In Yonkers, N. Y., there were 20,000 quarts of currants offered the schools. This was made into jelly to be given to the Red Cross. Containers were needed and the milk men left slips at all houses on their routes that they would collect and take to the school all containers contributed. A local refinery gave 600 pounds of sugar. Local ladies did the work, both learning and doing.

These are but illustrations of the changes in method and spirit that have developed among home economics teachers, pupils, and mothers as a result of necessary modifications of cooking practices.

The important developments in home economics in elementary and secondary schools in Ohio have been through the school lunch work, especially in rural and village schools, and with girls' home making clubs.

North Carolina reports "many schools are adding departments of home economics."

Home economics is rapidly introduced into the high schools in Washington. A State law provides that either home economics or agriculture shall be taught in all eighth grade classes.

The State of Florida especially evidenced interest and appreciation in home economics education by the following legislative act:

Be it enacted by the Legislature of the State of Florida:

SECTION 1. Any county board of public instruction, or the board of trustees of any special tax school district, is hereby authorized and empowered to establish and maintain a department of home economics, or a department of home demonstration work in any of the high schools of this State, and to pay the expenses of such department out of any public school funds at their disposal.

SEC. 2. Section 1 of this act shall extend to and include canning clubs, corn clubs, and departments of agriculture, to acquire land, stock, fertilizer, seed, and implements necessary to maintain the same. And no person shall be employed to demonstrate, teach, or instruct in any of the departments mentioned herein who does not hold a certificate of graduation from a recognized college, university, or normal school, indicating special training in home economics, home demonstration work, or agricultural work, or any one who has not had satisfactory experience in home economics or canning club work.

SEC. 3. County boards of public instruction are further empowered under this act to employ county agents who shall, under the joint supervision of the county superintendent of public instruction and the Florida State College for Women or the University of Florida, conduct practical demonstration work in home economics, girls' and women's contest work, canning club, corn club, or agricultural work, and other movements for the advancement of country home life, and shall aid the county superintendent and teachers in giving practical education in home, farm, or garden economics.—From Florida Laws, 1915.

The full effect of the Smith-Hughes Act will not be felt for a number of years, but even in this one year, when organization was still under way, much has been accomplished.

The Ohio State University finds that the new Smith-Hughes law has made it possible to train teachers for this at this department and to establish two practice schools, one in a small village, the other in the city. There are 20 vocational home economics schools in the State that will be supervised by the division of practice teaching in this institution.

STATE SUPERVISION OF HOME ECONOMICS.

At the time of the passage of the Smith-Hughes Act only four States had deemed it desirable to provide a State supervisor of home economics instruction. Since the passage of that act there are nine supervisors of home economics in State departments of public instruction, and in 15 States there is part-time supervision provided by the cooperation of State institutions of higher education and the State superintendent of public instruction.

In some cases the supervision is to be for Smith-Hughes schools only, but in others all home economics departments in public schools will receive this assistance.

The most marked change in elementary and secondary home economics is the breaking down of the rigid division of work which

heretofore has existed between foods and clothing, and a blending together of these and household administration instruction into a unified course in home making.

This, in turn, is creating a demand for public school home economics teachers who have been trained in all of the various lines of home economics instead of specially prepared to instruct in but one phase of the subject. The tendency is toward detailing a teacher to take charge of the whole course for a given class instead of allotting one teacher for sewing, another for cooking, a third for home nursing, and a fourth for personal hygiene or household accounting.

With the increased time for instruction in home economics, toward which school authorities are now tending, and with a more consistent, homogeneous course, a superior type of teaching is possible.

Better elementary instruction is preparing the way for more advanced high-school work, and this in turn is stimulating normal schools, colleges, and universities to base their entrance requirements on high-school home economics instruction and to build their courses on broader and more scientific lines.

The rate of extension of home economics in public schools has been about 1,000 high schools per year. This does not indicate the increased length of periods given the subject.

Usually home economics when established in a school system is required in certain grammar or intermediate grades and is elective for girls in the high school.

The policy advocated by the Bureau of Education has been stated in the bulletin entitled, "The Public School System of San Francisco," in which the following appears:

No rigid course in home economics can be planned that may be applied to all sections of a large city. All courses in home economics should be adapted to the needs of the communities in which these courses are offered. The end attained should be the same, but the means used should vary with the condition of the neighborhood where the work is given.

From the poorer sections in the cities the children of foreign parentage are often older than the average student in their grades, and since many of them leave school before completing the eighth grade, and since also they are particularly appreciative of the practical phases of education and thereby may be induced to continue in school, it is usually necessary to adjust the home economics course to meet their conditions and to stress the practical phases of the work. In sections where the children usually continue through the elementary grades and enter the high-school courses, a home-economics elementary school course somewhat less intensive may be best adapted to their needs. The latter course may logically lead directly to the high-school courses in the same subject and be so arranged that the one becomes the basis of the other.

Every girl in the city high schools should be required to pursue one year of home economics. This course should be equivalent to a full unit¹ of work and is most effective if it consists of two recitation periods and three double periods

¹ Equivalent to a five-hour course carried through one entire year.

for laboratory each week. This course meets the needs of the students in the courses leading to university entrance, and of those who pursue such vocational courses as are offered in the business high school and trade high schools.

Elective home economics courses should be in every high school except business and similar vocational schools, while specialized vocational home economics courses should be offered in one or more high schools in a large city.

Specially adapted courses of home economics designed to meet the natural limitations of the blind, deaf, or mentally subnormal are an essential unit of all large city school systems. Deaf children become expert in any or all household activities and through these courses may be led to vocational courses affording agreeable occupations and assuring adequate self-support.

These variations and adaptations of courses do not indicate that each teacher is to plan her own work or modify the course given; on the contrary, it means definitely and carefully planned courses which are consistent throughout and which lead the student to a predetermined goal in her training by methods adjusted to social and economic needs.

Classes in food preparation should be established for boys of the sixth, seventh, and eighth grades. If time can not be found for these during the usual school hours, they should be offered at hours convenient for the boys. While these courses are approved for all school systems, they are particularly needed in the cities of the Pacific Coast States, where so many boys go into camps of various kinds during the summer months.

Time.—Elementary school home economics instruction should begin in the fifth grade. Through this grade and the sixth grade the subject should be given four 45-minute periods of student time per week; through the seventh and eighth grades, from seven to nine 45-minute periods per week should be the minimum for home economics instruction. The 45-minute periods should be grouped so that the actual work shall be 90 minutes twice each week for fifth and sixth grade children. It is possible with the usual arrangement of school schedules to arrange two classes of this type before the noon recess and two classes in the afternoon.

The seventh and eighth grade students should report to home economics work in half-day periods twice or three times per week.

Two of the eight periods in the ninth-grade work should be given to recitations, and laboratory classes should be arranged for three double periods each week. Selected groups of children in the fifth, sixth, seventh, and eighth grades can, with advantage, spend from one-third to one-half of their entire school hours in these home economics classes.

High-school girls should be able to elect courses in home economics and related sciences up to one-half of their entire school time.

The foregoing recommendations agree with the more advanced ideas and practices in the stronger school systems of the country.

COUNTY SUPERVISION OF HOME ECONOMICS.

An interesting organization of home economics courses for county work has been effected for Shelby County, Tenn.

Home economics was first introduced into the Shelby County schools in 1913. Now (1917) there are 18 regularly established home economics departments, conducted by trained teachers instructing 950 students. During 1916-17 eleven regular grade teachers also

gave lessons under the direction of the county supervisor, instructing 135 grade children.

For the past two years the home economics courses in the Shelby County schools have been in charge of a county supervisor. The supervisor is the regularly appointed county agent employed by the Department of Agriculture to organize and conduct the girls' club. Her work is so arranged that she gives part time all through the winter to supervision of school work for which she receives compensation from the county board of education. Teachers' meetings are held once a month. All teachers report at the general meeting, after which the home economics teachers meet in special session in the County Home Economics Association, an organization of which they are all members and in which their special problems are discussed. This organization has been responsible for the preparation of a county course of study for the home economics classes in elementary and high schools. The course was adopted in the county two years ago (September, 1916), and has been followed with necessary adaptations since its adoption. The national emergency has made necessary special lessons in food conservation. These have been provided for by the county supervisor through the County Home Economics Association, in which they have been discussed. Special mimeographed instructions have been sent out for these lessons. The association has agreed upon the use of an elementary textbook for the grade classes and an advanced textbook for the high-school classes.

The county supervisor visits the schools once in four or five weeks, observes the lessons, looks over the condition of the laboratory, consults with the home-economics teacher, and acquaints herself with general school conditions. She has also been making a special effort to further the science work in the high schools and offers suggestions and criticisms to those who are teaching science.

The equipment for the home economics laboratories is ample and for the most part well arranged and in good condition. The total equipment, including laboratory desks, stoves, utensils, and machines is valued at \$5,600. Five hundred dollars' worth of this equipment has been furnished by community clubs and school activities. In one of the two schools temporary arrangements are soon to give place to improved conditions. A uniform type of desk has been used in the county, but considerable latitude has been permitted in the quantity of equipment and its arrangement in most of the schools. Where funds have been adequate, expense has not been spared to make the equipment both permanent and attractive. In several schools the desks are white enameled and lend a particularly attractive appearance to the room, but in the laboratories more recently furnished a desk with oak finish has been adopted, as it promises to give more satisfactory results in durability. Oil stoves are very generally used

in the schools, for they are in use in the houses of the county. The oil stoves are included in the equipment in sufficient number to give the girls good practice in their management.

The home economics lessons begin in the fifth grade in a few schools and continue through the four years of high school wherever possible. The classes are not large and in most schools do not completely fill the time of the special teacher, hence the special teachers teach various other subjects in the school.

The teaching of food values and methods of food conservation is not limited to the home economics classes. The teachers in the grades give simple lessons to all of the children on the classes of foods and their use in the body. This work is taken up in the various classes with which the subject can be correlated and is supervised by both the county supervisor and the special supervisor of home economics.

The presence of the State Normal School in the county has been of great help in building up the home economics courses in the county schools, as the able teachers in the normal school have given it their support in every way. The household science director in the normal school has acted as president of the County Home Economics Association since its organization.

The organization of the teachers of home economics under the leadership of a county supervisor and the close touch with one another provided through their County Home Economics Association is a specially strong feature of the home economics instruction in the county. The adoption of a course of study and the uniform textbook also serves to give strength to the work. The teachers have been chosen with care. Not only have they had special training, but also they are especially imbued with enthusiasm for their work and have a definite interest in the problem at hand. For the most part they are very young and but recently out of school. The salaries paid make that inevitable. Considerable care has been shown in the selection of the various other subjects which they have been asked to teach. For the most part the subjects assigned them are related to their special line of work, for example, biology, agriculture, and physics. Some are teaching as many as four subjects in addition to home economics. In those schools in which the number of pupils in the home economics classes is small, this seems unavoidable at present.

Hamilton County, Tenn., has a similar arrangement whereby the county agent acts as supervisor of home economics for the county schools. One of the immediate results of this supervision has been the introduction of home economics lessons in the suburban grammar schools of Hamilton County and the development of a uniform course of study.

STATE NORMAL SCHOOLS.

The home economics departments in the State normal schools have been vitally affected by the forces that have been at work during the past two years. As was to have been expected in schools whose students are living on a very narrow margin of income, the attendance has decreased. This decrease in attendance has been appreciable among students taking the special home economics course, but there has been nothing to indicate that the courses have been permanently affected thereby. On the other hand the efforts to give instruction in food conservation to the entire student body in the normal schools have been so successful that several schools report that a general course in food study is to be permanently required of all students in the normal school, men and women alike. Thus a greater number of students is being given instruction relative to the place of home economics in general education, and a wider interest is created in the home economics teaching in the public schools of the country.

The changes that are being wrought in the normal school curriculum through the Smith-Hughes Act have not been in force for a period of sufficient length to have made a well-defined contribution to home economics education, but they promise to do much to further the standardization of courses and methods in those schools which come within scope of the act.

The necessity for conservation in our national life has acted as a spur to normal school teachers and pupils alike, and there has probably never been a year when courses were more alive and work more intensive than during the 12 months just past. Old courses have been altered and new courses have been framed to meet the needs of the country. Community interests have been made the basis for school problems. The home has come to be regarded as the laboratory of the home economics student. Home economics principles have begun to take deep root in daily practice of the individual, the family, and the community. The national emergency has been the means of accelerating the forces that have been operating slowly through many years, bringing to a focus much for which home economics teachers have long been striving. Thus the need for immediate conservation has made possible the placing of greater emphasis on economy in food, clothing, and other phases of living. Courses in fancy cooking and elaborate serving are being abolished in the normal schools. Experimental cooking with a view to the use of proper substitutes has taken the place of these courses. Sewing on expensive materials for personal wear has given place to Red Cross sewing, foreign relief work, or sewing for community needs. Remodeling of old garments and the intelligent care and laundering of the wardrobe have received emphasis. The relation between the school garden and the home

economics department has been recognized by close cooperation. More attention has been given to the body requirements than formerly, and this has resulted in an increased number of courses in dietetics, a more earnest study of the nutritional needs of school children with intelligent planning for school lunch work, and a closer cooperation with other forces in the community working for public health. One of the most valuable of the lessons of the year has been that which has come from placing much of the responsibility for the new phases of the work with the students, securing their cooperation, developing their initiative, and helping them to learn by giving out to others all that has come to them through study and investigation in the laboratory. Thus students in the normal schools have held classes in dietetics in the community; they have passed on, by means of demonstrations or through the local papers, recipes they have worked out; they have arranged food and clothing conservation exhibits and have organized club work among small girls. Several normal schools have added special demonstration courses to prepare their students for this community work.

The following statement in regard to the methods of carrying on practical work in one of the normal schools shows the tendency to make the work contribute to the needs of the school as well as to give the students practical problems:

We are installing a large school cafeteria, equipped to serve 1,000 at a meal, and we expect to use this to further our food conservation campaign. We are making arrangements so that all food which is used even in experimental work in the laboratories can be sent to the cafeteria, the idea being to minimize any tendency toward eating food during the laboratory time. We expect to use the cafeteria as an educational means of teaching proper food combinations through bulletin work. The girls in elementary dietetics as well as the advanced class will keep a record of the way the students are eating and will give suggestions for wise selections through chapel talks and our school paper.

A number of girls who are leaving this year to teach in high schools are planning to have the first-year high-school domestic science work as it has been generally given, except that food prepared by these girls will be used in the small school cafeteria and the second-year domestic science girls will run this. The second-year girls will be divided into two groups, the one preparing the food, the other managing. The work of these groups will alternate.¹

Throughout these months of increased activity the normal schools have had occasion to give time to the consideration of the real purpose of their courses in home economics. Recognizing the fact that it is the function of the normal school to prepare teachers for the common schools, they have made a greater effort to give instruction in home economics problems to all elementary and rural teachers and have put less stress on the preparation of special teachers of home economics. Because of the growing tendency throughout the coun-

¹ Report received from State Normal School, Emporia, Kans.

try to require that all high-school teachers hold college degrees, the normal schools are having less demand for teachers of home economics for high schools. One normal school has lengthened its course for special teachers to four years in order to meet the standard of the high school. Another normal school has entirely abolished its course in home economics designed for the preparation of special teachers of the subject, because of the lack of demand for special teachers in the common schools of the State.

Little uniformity has existed in normal school courses, because of their necessary compliance with widely differing local conditions, but the teachers are beginning to feel that they have some problems in common with one another. In one State the normal school teachers of home economics have come together to work out a course of study for the use of the elementary school. They have formed an organization which is the means of bringing all the teachers of the State together and is doing much to raise the standard of home economics teaching.

A conference of home-economics teachers of the State normal schools of New England was held in Boston, Mass., February 16 and 17, 1917, at the call of the commissioner of education. This was the sixth in a series of sectional conferences, the first of which was held November 17, 1915. Groups of normal-school teachers having similar problems have been brought together at each of these conferences. Inasmuch as conditions varied widely, interesting discussions developed, and suggestions were made for possible changes in existing conditions. The following summary of the discussions suggests the nature of the problems which arose:

1. The course given in the normal schools should be planned with a definite purpose in mind. This purpose may be one of the following: (a) The preparation of special teachers of home economics for the common schools of the State; (b) the preparation of rural teachers so that they may give lessons in home making or conduct a lunch in addition to their work of general teaching; (c) the acquaintance of all normal students with the fundamental principles of home economics, that they may recognize its place in the general school curriculum, that they may be able to cooperate intelligently with the special teachers of home economics, and that they may be prepared to undertake the task of home making intelligently.

2. The time allowed for a course should be sufficient to provide adequate training. If special teachers of home economics are to be trained, a special course of at least two years is absolutely essential and a course of three years is preferable. If the lessons are to prepare rural teachers to handle classes in cooking, serving, and home making, a general or survey course of five periods a week for an entire

year should be required. This course should include or be accompanied by observation and practice in the teaching of home making and in the preparation of the school lunch in the rural school. A similar course should be offered the general student.

3. Entrance requirements for the course should be definitely defined. This is particularly necessary to the success of the course for the special teacher. Entrance requirements will necessarily vary according to the development and needs of the particular community. Courses in home making in the grades and high school should be required for entrance just as soon as such courses become general in the community.

4. The short course in home economics should be well balanced and include simple problems in home making, elementary study of foods, cookery, textiles, and serving. It must include both laboratory practice and lecture periods.

COLORED SCHOOLS.

In the colored schools of the South there has been progress in the courses in home making of recent years, because of better-trained teachers, more facilities for work, and a developing system of supervision. The majority of teachers have received preparation in industrial schools, and some have been brought together in county institutes for instruction and have attended summer schools for further study. In some States special courses giving suggestions for lessons in home economics are sent out to the teachers. Most of the States have county and State agents, who keep in touch with the work through personal visits and correspondence. County agents are able women qualified to instruct in industrial lines and to guide the teachers in their work. Since the beginning of the war this work has been given a remarkable impetus. Home gardens have been planted in greatly increased numbers, and large quantities of fruits and vegetables have been canned, dried, and stored for winter use. Industry, thrift, and sanitation in the home have resulted from the work of the supervisors.

While better school buildings and equipment have been provided for the colored schools, the high cost of living has seriously retarded the industrial work in many places, because funds to provide material for work have been inadequate or totally lacking. Many have been the expedients to which ingenious teachers have had to resort to secure materials for the classes in cooking and sewing. School lunches, sales of foods cooked, the keeping of a school garden, the use of flour sacks for fashioning undergarments, making over old clothes, and sewing for the teachers have been practiced in many schools. In a great number of cases teachers have themselves con-

tributed materials for the work. This uncertain system of securing supplies has been a serious detriment to the development of the work, and the condition should be remedied, if effective work is to be done. Notwithstanding the drawbacks under which the industrial teachers have labored in the colored schools, the annual school exhibits which form an important feature of their work have steadily improved in character. The articles made in the sewing classes have become more simple and better adapted to the needs which they are to answer. They show better taste in color and design, a truer economy in the selection of materials, and a higher standard of workmanship. In cooking exhibits the chief stress has been put on the canning and drying of food products, in order to emphasize conservation and economy. Fancy cooking and candy making are giving place to an honest presentation of the homely needs of daily life. As these exhibits are serving to set standards for the community and to convince the people of the value of the school work, they can well be regarded as a factor in community development. In those schools in which boarding departments are maintained an improvement in the standard of living is noted both in the care of the building and in the meals served. This is felt to have resulted very directly from the teaching of home economics that has been done throughout the South.

HOME ECONOMICS IN COLLEGES AND UNIVERSITIES.

The report of development of home economics in the University of Illinois during the past two years, 1916-1918, may be considered typical of the best home economics departments of the country. It is as follows:

The regular work of the department has been marked by an increase in attendance, by an emphasis upon food work, owing to war conditions and emphasis upon extension work because of the Smith-Lever and the war emergency funds. The development of the food work has been along two lines: *For the undergraduate student*: Emphasis upon what might be termed practical dietetics, so that the students could interpret to the general public scientific feeding in terms of daily life. An attempt to take this direct to the university public in the lunch room, through charts and suggestions about selection of food. Second, experimental work in food substitutes. *For the graduate student*: The emphasis was upon the problems of nutrition, including the feeding of the child as well as the adult. Third, owing to the increased costs of living, emphasis has been put on economics of the family and through cooperation with another department of the agricultural college, some studies are being made in the cost of living. Fourth, a special problems course has been changed into a course designed to give extension workers a broader conception of extension work and its significance in the development of family and community living.

The university has for many years retained a practice apartment as a laboratory for household management. The passage of the Smith-Hughes Act has made

it necessary to enlarge those laboratory facilities, and arrangements have been made with the university authorities for the use of its university cooperative houses for the teacher training in Smith-Hughes.

The practice work in home economics for teachers has been conducted in connection with the Champaign and Urbana schools for several years. These schools are typical of the schools into which the university graduates go as teachers and afford excellent training for the conditions as they exist in Illinois. The Smith-Hughes bill occasioned a readjustment and an enlargement of the work already being conducted, two additional instructors and a special division of subject matter and method being provided for the teacher training work in home economics. Two new courses have been added, a course in economics of the family group and a course in interior decoration.

In 1916 a series of five lectures was provided to reach the non home economics women of the university and also the women of the community. These lectures were given by heads of various university departments, and presented phases of production, conservation, transportation, and distribution of food supplies and food products.

A two weeks' intensive course in canning, preserving, and drying was given, open to members of home economics classes who volunteered for summer service in their home communities.

A similar course was given for nonuniversity women.

Red Cross classes were given in nursing, dietetics, and surgical dressings.

Special classes were provided in institutional management for serving large groups of people and in conducting lunch rooms, etc., on a war basis.

Special courses were given for fraternities, boarding-house keepers, commissaries, etc.

Two special courses were conducted as supervised by Dean Olin Templin for non home economics women.

No courses have been offered for men students here, but all the commissaries of the fraternities and sororities were invited to special lectures adapted to their needs, and in many cases personal assistance was given to the men commissaries.

Introduction of hot noonday lunch in many rural schools has been emphasized. The work in the Urbana and Champaign schools is under the direction of the department of education of the university and under the supervision of specially trained teachers for that work, and some important developments are expected in the present year.

There has been no State supervisor of home economics in connection with the State superintendent of public instruction until the passing of the Smith-Hughes Act. There is now a woman who passes upon the merits of the high schools applying for home economics under the Smith-Hughes Act, and it is expected that the university will have its supervisor of teacher training follow up the work of its students after they leave the university. The State leader in home economics demonstration unites the work of the States Relations Service and the extension division of home economics in the University of Illinois.

The most important State legislation is an act providing for the proper lighting, heating, and ventilation of rural schools, also proper water supply and sewage disposal system. Suggested provision to be met on penalty of forfeiting the district's share of the public school fund. With the State demanding proper sanitary conditions for children at school, we have splendid basis for persuading the home to use equal care in promoting child welfare.

- The effect of the war upon home economics instructions is indicated by—
- (a) Increased enrollment in courses offered at colleges and normals and a readjustment of courses to suit specific war needs.
 - (b) Increased demand for extension lectures and demonstrations.
 - (c) The accrediting of home economics (for one or two entrance credits) from 195 of the 239 accredited high schools of the State, thereby giving recognition to this work of the secondary schools.
 - (d) The employment in 14 counties of home demonstration agents.
 - (e) The cooperation of Council of Defense agencies in the city and country alike with the State Relations Service for food conservation.

Aside from the changed emphasis demanded by war conditions, the attempt is being made to put the extension teaching in home economics upon a better educational basis. First, by the classification of the material to be taught along distinct lines of food, clothing, equipment, family accounts, public health; and second, by better organization and presentation of material along these lines.

The home economics teachers' branch of the Illinois High-School Conference has established uniform courses for both elementary and high schools for Illinois.

EFFECT OF WAR ON COLLEGE COURSES.

Certain movements were common to all colleges. Many institutions either made direct use of the food administration's courses of study or blended the substance of these into their established courses. Almost every college placed especial stress on food preservation as well as upon food conservation. Red Cross sewing was done both in and outside of regular clothing classes, while special instruction was given in surgical dressings, first aid, and knitting. Almost all colleges opened special classes to local townswomen.

In Teachers College, Columbia University, the school of household arts has made the following adjustments and advancements in teaching the various courses in home economics:

Establishment of practice houses.—During the last year a practice apartment has been in operation in a nearby house, practically under the college roof. It is self supporting. The apartment is occupied by six students, five of them majoring in household administration, and one, the director of the group, majoring as a teacher of vocational homemaking. The students do all the work of the apartment and receive eight points of college credit for satisfactory performance of duties. The period of occupancy is for one term of about 17 weeks. The schedule is so arranged that each student has opportunity to serve three weeks in each of the several capacities, of cook, housekeeper, waitress, hostess, etc.

It is hoped to increase the number of practice houses as rapidly as there is demand, for the purpose of offering managerial practice to teachers in training for vocational homemaking and home practice to young students with only laboratory experience. In addition it is hoped to demonstrate the possibility of a better system of housing for many students who can not be accommodated in the college dormitories.

There has been no marked reorganization of the department of household arts education during the past few years, with the exception of the establishment of the committee basis in the staff, the chairmanship passing from one member of the staff to another each year.

As indicated elsewhere in the report, special provision has been made for the training of extension workers and for teachers of vocational homemaking. Furthermore, as a means of extending the experience of the student teachers and of combining training and service, a group of students who have been teachers before entering Teachers College have volunteered their services in the home service section of the American Red Cross as food advisers in families where needed.

Opportunities for practice teaching have opened in one of the New York City high schools, and it is hoped that the privilege may be extended.

An experimental school lunchroom has been opened in the elementary practice school, providing simple school lunchroom experience for student teachers as a phase of their practice teaching.

A phase of work introduced during 1917-18 was the opportunity for juniors to become acquainted with the practice teaching problem. They serve as assistants to the seniors in their teaching, and meet for conference five times during the semester with their supervisor. This has proved to be a very helpful basis for the actual practice teaching of the senior year.

The teaching staff holds weekly conferences to which, from time to time, are invited members of the faculty of Teachers College, graduate students, and others who present in an informal way certain phases of educational philosophy, sociology, and methods which they have specially developed.

New graduate courses.—1. Graduate courses in household arts education practice are so arranged that the piece of individual work done by each student is a problem in itself and in a certain sense always a new course.

2. Education 294B, vocation for girls and women, opens up the field of various occupations for girls and women related to the household arts as well as to other avenues of work.

3. During the last year two new majors have been offered in household arts education—(1) Teaching vocational homemaking; (2) training for home demonstration agents in rural communities.

The following are offered as the most outstanding developments in elementary and secondary schools in relation to home economics education:

- (1) Unification of all phases of home economics work under one course, when for general education—not "domestic science" and "domestic art" separately.
- (2) The organization of courses under the "unit" scheme.
- (3) The use of the problem-project method of instruction and organization of courses.
- (4) The introduction of projects for community and international service in the work in sewing.
- (5) The use of the school lunch room as a means of utilizing food products, and of furnishing experience in family quantity cooking; also as a means of teaching table service and etiquette.
- (6) Socialization of the home economics course of study by every possible means (e. g., preparation of food by W. I. H. S. during influenza epidemic).
- (7) Encouraging the social instincts of the girls by utilizing them in preparing for social affairs of the school.
- (8) Providing work in home economics suited to their needs for boys.
- (9) Vocational home-making courses in the high school, for high-school girls and also for women who wish to come to the school for special training along this line.

State supervision of home economics.—While Teachers College does not conduct supervision of State instruction, it prepares women for this work. The course "Education 137-138, Supervision of Household Arts in Schools," aims to open up the field of State and school supervision of the home economics studies. Since the operation of the Smith-Hughes law the demand has increased for State leaders of home economics under this bill as well as for supervision and criticism of practice teaching in home economics studies in normal schools and colleges. This course, with others in general supervision of school instruction, aims to prepare for State supervision of home economics.

Effect of the war on the interest in home economics instruction.—To meet the demands for education along the lines of home economics, various courses of a popular nature were given during 10 days in the latter part of May in the form of emergency courses. These were largely attended, and it is significant of the increasing interest in home economics instruction that large numbers of the registrants for these special courses were from the school of education as well as from the school of household arts.

The character of the regular course offered has been changed considerably to meet the new demands and interests of the students and the needs of the times. Experimentation with various substitutes for the foods needing strict conservation with a view to issuing reliable recipes for general use was carried on in the foods and cookery department. The need for a greater number of methods of food conservation was met by the organization of new courses in canning, preserving, and drying of foods. Conservation and renovation problems were also undertaken in the textile and laundry departments and met with a response that demonstrated the interest and the need.

The interests in fields of study have been changed and broadened also by war demands, in that the need for people qualified to fill administrative positions as dietitians and institutional administrators of various types has been so pressing that many who had heretofore looked forward to teaching have changed either temporarily or permanently into these other fields of work.

Another effect has been apparently to increase registration in home economics departments of the college. Contrary to expectation, the home economics classes have held their own in numbers or have even increased in enrollment.

New features in home economics extension work.—Three new features characterize the preparation of women for home economics extension service:

(1) Beginning 1918, Teachers College offers a major in household arts for rural extension teachers. This major is open to women especially qualified for the work. The special entrance requirement is two years' study in an approved college. A program of studies, 54 points, may be chosen from the fields of foods and cookery, nutrition, clothing and textiles, chemistry, bacteriology, hygiene, administration, and nursing. In addition, courses in education and rural sociology will be required. The completion of this major entitles the student to a regular Teachers College diploma.

(2) The second new feature for the year is the opportunity of investigating rural conditions and getting practical experience in connection with the work of the home demonstration agent through direct participation in the field. Through special arrangement with the department of rural education of Teachers College and Warren and Huntington Counties, N. J., household arts students who desire it are given this opportunity.

(3) The school of practical arts of Teachers College has planned a mid-winter session of six weeks for the benefit of home demonstration agents who care to avail themselves of the opportunity for further training.

The department of institution administration of Teachers College, Columbia University, with increased numbers of students has arranged the work this year under three specialized heads. The groups preparing for cafeteria management are having special work, both in the classroom and of a practical nature in the field under direction of Miss Florence La Ganke, formerly in charge of the cafeteria at Western Reserve University, Cleveland. This practical work is especially emphasized this year, for unusual opportunities have been afforded for students, not only in the cafeteria of the Horace Mann School for regular work, but also in connection with the college commons for the feeding of the Students' Army Training Corps. Besides this, as many former Teachers College students are in charge of cafeterias in New York City—in lunch rooms for employees in banks and department stores, in cafeterias for business women, etc.—the experience has been a varied one which our students have been able to obtain.

A special group, training to be dietitians, have their practical work under the direction of Miss Eleanor Wells, president of the American Dietetic Association, New York City. Because of the great demand for dietitians, this side of the work has been developed this year, and for the first time we have been able to have the full time of a special dietitian to supervise the field work in hospitals. Through Miss Wells's acquaintance with the dietitian problems here in the city, it has been possible to give our students practice experience to a greater degree than before. A special leaflet is issued describing this work.

The third group—that of the managers of dormitories, clubs, etc.—has been put under the direct charge of Miss Katherine Fisher, who came to Teachers College last year from Macdonald College, Quebec. Again, with this group the practice work is being emphasized in connection with dormitories, Y. W. C. A.'s, and clubs in the vicinity. A close link is being worked out between managers of boarding halls and this department for further opportunity for practice work.

Following this practice work, in connection with their regular class work, students are required in every case to give a stated period of time in the field following the period of training.

The demand for institution workers has never been so great as during this past year; this includes not only the specialized fields of dietitians for canteen service and also over-seas and for cafeteria and hostess work in connections with camps, but also an unusual demand for organization of departments of institution administration.

In connection with household administration a housewife's bureau for helps in housekeeping (other than food) has been organized. The bureau has special exhibits, posters, clippings, shelf of suggested readings, equipment, leaflets, etc., pertaining to the special subject of the week. This work is under the supervision of a graduate student who cooperates with the different members of the household administration department. Special meetings are scheduled during the week which housewives may attend, and many outside lecturers are called in to talk upon special topics.

The final summary of the work of this bureau will be suggestive for teachers in other communities.

Special courses for home makers are being presented in connection with conservation problems.

Simmons College reports as follows:

The war has made new demands on the department of household economics at Simmons College, as it has on technical departments everywhere. Existing

courses in cookery, dietetics, and sewing have been modified to suit the times; advanced specialized electives have been introduced; extension courses have been increased; lectures and demonstrations on food conservation have been given for students in other schools and for the public; and members of the staff have done much advisory work on public committees and in editing various publications.

At the Florida State College for Women special courses in home economics have been given continually, since the declaration of war, for all non home economics students who wish to take lessons in food conservation and production. Besides this, in September, 1917, a conservation short course was given to the women of the State, and representatives from 35 of the 54 counties were present. In June, 1918, a short course for country girls was held. Forty-two girls, representing as many counties, were present. Since there are only 54 counties in the State, these girls have been the means of reaching communities in every section of the State. In September, 1918, a college for women in war work, called the War Work College for Women, was held here at the same time with the meeting of the home demonstration agents.

From Tampa comes the following opinion:

The war, particularly through the establishment of the Food Administration, with the consequent regulations, has added a big element of interest to all home economics instruction, and has generally increased the respect and esteem of the public in general for the work.

University of Washington:

Practically all home economics courses were modified to meet war needs. Specific courses are:

1. Conservation of food.
2. Making over of clothing.
3. Remodeling of hats.
4. Food service. (This course is given for men from the naval training camp located on the campus.)
5. Nursing. (This is given to the hospital corps of the Navy.)

A course for nurses' aids was given to 98 students, in which the home economics department cooperated.

A five-credit course in food conservation was given in the spring of 1918 throughout one-quarter to 130 senior women who were not majors in home economics. One quarter of the year 1917-18 was devoted to the remodeling of garments in the dressmaking class.

In Minnesota the war has tended to increase the interest in certain lines of home economics instruction and to divert interest from other lines. Interest in work which leads directly to war work, as for example dietetics work, work as assistants in laboratories, and extension work, has been increased. The interest in general home economics where no vocation other than that of home making is involved has decreased slightly.

At the Oregon Agricultural College the following courses were organized and maintained:

Food Administration course in "Food and the War," course of 4 lessons for fraternity cooks, and a course of 10 lessons for the housewives on food conservation.

Regular courses in camp cookery and cookery for men who do their own housekeeping. Special course for those engaged in military training.

Home economics department gave assistance in working out food conservation rules, to which all fraternities, boarding houses, etc., voluntarily subscribed.

Miss Marlatt, of the University of Wisconsin, states:

The effect of the war upon the interest in home economics can not be measured. Owing to the emergency home demonstration agents, the training of volunteer classes and the work of the Junior Red Cross, the interest in home economics teaching has been very greatly stimulated.

The College of the City of New York offered extension courses in "Food in War Time." This was much similar to ordinary lecture courses on foods and nutrition, except that all food facts were related to war conditions. Among those who presented these courses were Miss Laura Cauble, Mr. Robert McDowell Allen, Dr. Lucius P. Brown, Dr. H. C. Sherman, and Miss Mary G. McCormick.

PRACTICE HOMES.

That the necessity existed of more closely alining home economics teaching with actual home conditions has been recognized for many years. Various methods have been attempted to attain this result, the most promising of which has been the use of an ordinary residence or apartment as a practice home.

It has been difficult to convince college and university authorities that a practice home was an essential feature of home economics equipment, so long have they thought of college work being carried on in laboratories.

Of recent years there has been an increased tendency to provide practice homes for senior students in colleges, and these have also been furnished by some school boards or philanthropic agencies in certain progressive cities.

The requirement by the Federal Board of Vocational Education that institutions receiving teacher training money should establish these practice homes caused an increased interest in them, as the following reports indicate:

At Lewis Institute, Chicago, the course in household management was much improved by the addition of a practice apartment. This was built of wall-board in the corner of the institute attic, but the classes, with paint brushes and needles, transformed it into a home-like place where activities of all kinds take place; even classes of

children come in to be taught "home making" by the practice teachers in the senior class.

At Ohio State University the department of home economics moved into a large, new, commodious building in September, 1916. This gave the opportunity for further development. A practice house in connection with the household management course will be established in an apartment in the building this year.

A practice home has been in use at the University of Missouri since June, 1918. The students remain in the home from 8 to 16 weeks, and there are from 7 to 9 girls living in it at a time. An additional practice home was opened at Cornell University in 1917; the first one has been in existence four years.

In the Kansas State Agricultural College a house has been leased by the department of domestic science, which will accommodate 14 students and a teacher. This house is to serve as a laboratory for the teaching of household management to students who wish to qualify to teach home economics under the requirements of the Smith-Hughes Act. The work of the home is to be done under the supervision of the teacher, by the students. The length of time for each group is not definitely determined, but will probably be one semester. Cost of maintenance to be prorated among the students.

At the Florida State College for Women they have established a practice house. All graduates live in the cottage for a minimum of eight weeks during the year. The girls live in groups of six at a time. Poultry and gardening are carried on by the practice house family. The work is under the supervision of the regular instructor, Miss Lucy Kimball. The expenses of the cottage last year did not exceed 30 cents per person per day, exclusive of rent.

Temple University, in Philadelphia, will use the university dormitories in lieu of a practice house until it is deemed advisable to establish a separate residence for this practice work.

Milwaukee-Downer also uses the dormitories in place of a separate practice house.

A practice house will this year be established at New Hampshire Agricultural College and one will also be established at the Connecticut Agricultural College.

The University of Nevada enjoyed the use of the president's house as a practice house.

The Agricultural College of Oklahoma will have a practice house this fall.

The home of the president of Lincoln College, Lincoln, Ill., will be hereafter used as a practice house.

At the Oregon Agricultural College a practice house was established in September, 1916. It is entirely self-supporting. It houses 11 girls and 1 faculty woman.

A new practice house has been given to the University of Indiana.

A practice apartment was in use in 1917-18 at the University of South Dakota, and this arrangement will continue until the State appropriates money for a practice house.

A friend of Hood College, at Frederick, Md., made a liberal donation for a practice house for the home economics women of that school. This is the first practice house in Maryland and marks an epoch in the teaching of home economics in the State. The home is modern in every respect, is comfortably furnished and affords an opportunity for all senior home economics students to have actual experience in the operation of a home.

The practice house at the University of Wisconsin has been organized since 1910. This year they report as follows:

We are now erecting a model farm house which will be used as a practice laboratory in the course in dietetics and household management so that we will be able to give longer periods in the cottage to the students in the household management courses.

Oxford College, Oxford, Ohio, has maintained a practice cottage for some years.

Pratt Institute has long maintained a house in which students can try out the principles of household administration.

In connection with the practice house at the Mississippi Industrial Institute and College at Columbus, there was a practical home dairy. A cow was kept to supply needed milk and to give an opportunity to teach the proper care and handling of milk. Cream was secured from the local creamery, and each girl had experience in making 20 pounds of butter.

PRACTICAL APPLICATION OF FOOD COURSES IN THE MANAGEMENT OF LUNCH ROOMS AND CAFETERIAS, AND IN COOPERATING WITH THE FRATERNITIES, DORMITORIES, AND BOARDING HOUSES.

Simmons College reports as follows:

We have excellent cooperation between the teaching staff and the dormitory administration. Our house superintendent is a member of the faculty and in charge of all work in institutional management. Our policy continues to be to admit for institutional work only mature women.

In the Florida State College for Women the dormitory is in charge of a trained dietitian who is a member of the faculty of the school of home economics doing some teaching in nutrition.

Agricultural College of Washington states:

Through our division of institutional management the student halls are operated under the direction of the college of home economics. The fraternity houses gave active cooperation and have frequent meetings of their house managers with the head of the division of institutional management. Most of the sorority houses are now being operated indirectly by students who are house

members and who have elected that course of study. This last year we have established a cafeteria. The head of the division of institutional management is also in charge of the special mess for the soldiers camp now stationed at the State college.

The home economics department of the Ohio State University reports that several seniors who registered in proseminary course have cooperated with boarding houses, fraternity houses, and sorority houses, in managing the food, as well as the complete budget. A large manufacturing plant asked for assistance in reorganizing their welfare lunchroom. This was worked out, and a trained worker placed in charge. The lunchroom will be used as a laboratory to some extent for students taking institutional work.

It is with the idea to develop greater cooperation between the department and the college cafeteria and fraternity and sorority houses at the agricultural college of Utah that two new members of the staff have been chosen for their experience in cafeteria and institutional work and a complete and up-to-date kitchen for training students in cafeteria and institutional management has been installed.

During the past year a woman for institutional work has been added to the faculty of the home economics department in the Ohio State University, and a course will be developed with laboratory work in a new cafeteria.

In the *Kansas State Agricultural College* the institutional work has greatly developed during the biennium. The cafeteria, which was equipped and opened in 1915 for the purpose of feeding the students and serving as a laboratory to teach institutional management, has been highly successful. It has paid all expenses, including director's salary, and has had a balance to apply toward additional equipment. Strong courses in institutional management and institutional cookery have been developed. A lunchroom management course of one year has been added.

The home economics department of the *University of Washington* has complete charge of the commissary department and the housekeeping of the dormitories, which accommodate 100 students. Frequent advice and help is asked for and given to the fraternity and sorority houses. A university commons is housed in the home economics building and is an activity of that department. It affords opportunity for practice work for students in institutional management.

The department is called upon to act in an advisory capacity in the management of fraternity houses.

During the year 1917-18 the department of home economics in the *Agricultural College of Colorado* operated a college-girls' boarding club in which 30 students were served, at a flat rate of \$16 per month. This amount covered not alone cost of materials but rental, heating and lighting of the house, service, breakage and depreciation of 10 per cent in furniture and furnishings. In addition there were supplied to the resident and faculty members and the working housekeeper their rooms. Canned fruits, jellies, jams, and relishes were supplied to the club at cost of raw material. The department of home economics found this to be a very practical and helpful demonstration in house management.

At the *University of Wisconsin* the director of the university commons and her assistants are members of the home economics department. Practically all the sororities have a home economics student as their steward. The fraternities have occasionally asked help in the selection and buying of food.

At *Milwaukee-Downer* most of the practical cookery work is done for the college dormitories or cafeteria. All students of the college home economics department are given opportunity to work in the college cafeteria.

At the *University of California* conferences are held by the head of the home economics division each term with the Pan-Hellenic body, made up of club managers, and with the approved boarding-house keepers. There is no official machinery, however, connecting the division with any eating places. It is proposed during the coming term to place the student cafeteria on the campus in charge of a committee of women students under the leadership of a graduate of the division, who shall be given the management of the cafeteria as an economic problem for credit. It is believed that the running of such an establishment offers degree credit field only for one student at a time.

At *De Pauw University* the home economics department and dormitory system are very closely related, in that the head of the department who does part-time teaching is also director of the three halls, which include the housekeeping, boarding, planning of meals, buying, management of employees, records, etc. In other words, home economics principles are being carried out in the college dormitories, and the plan has been quite successful.

In *Lewis Institute* the institutional management classes were benefited by the installation of a small bakery and laundry. These served the double purpose of supplying the lunch rooms, dormitories, etc., with baked products and clean linen, respectively, and in giving these classes extra experience in their chosen field.

The arrival of a training detachment of 360 soldiers at Lewis Institute turned the gymnasium into a mess hall; the cafeteria kitchen adjoining was quickly augmented with extra equipment and more employees, and most of the institutional students took an active part in assisting in the work and management. The summer school has given a "canteen course" with practice work here and in the lunch rooms. New ranges, mixing machines, vegetable peeler, etc., have been material helpers and have given these classes experience in their manipulation and uses.

The *Temple University* lunch room has been placed under the supervision of the household arts department: (1) Some service hired; (2) some cookery and all management, and some waitress duties, done by pupils under supervision of instructor.

The results of first year's operation in cost are: All costs cleared, including rental of space, provision for depreciation, of equipment, gas, etc. Salary of instructor not included, as this is considered a legitimate instruction cost.

There has been greater opportunity given for practice teaching with work more closely supervised, and lunch room management course has been introduced.

SMITH-LEVER EXTENSION WORK.

The Secretary of Agriculture has expressed the opinion that the extension service rendered under the Smith-Lever Act is the largest educational work in the United States.

New phases of extension teaching in *Ohio*:

Home demonstration work established September, 1917. Now have 12 county agents and 7 city agents.

Teaching by means of illustrated lecture and demonstration from an automobile which toured part of the State in the interest of poultry and egg production.

Regular members of extension force assigned to Chautauqua tours to give food conservation demonstrations.

Demonstrations in homes of foreigners, often non-English-speaking, is a form of teaching done by urban home demonstration agents.

Teaching food facts by means of games or playlets is a method newly tried by urban agents in work with large groups of school children.

The exhibit method of teaching has been used by home demonstration agents.

The teaching of the extension service of the home economics department has been considerably extended by the enlistment of home economics trained people all over the State who signify their willingness to give talks and demonstrations in their communities. They give their service, and the people for whom the demonstration is given pay expenses of supplies used.

In *Nebraska* the county home demonstration agents are placed on a permanent basis, each county paying one-half of the total expense. The first work of each agent is to establish a county homemakers' association comprised of a number of local associations sufficient to reach all of the women in the county. These local associations meet monthly and during the first year the agent meets with them or trains leaders for such meetings as she can not attend in person. During the past year the conservation of food has been the main topic, with some attention devoted to clothing conservation. Great interest has been displayed in food values. The county food administrators of the State are very ardent supporters of home demonstration agents because they find that in those counties where there are home demonstration agents the spirit of the women and their attitude toward food conservation is much better than in those counties where they have no such agents. A large number of volunteer demonstrators have been trained the past year by the agents for the

purpose of giving sugar and wheat conservation demonstrations. Training classes for volunteer workers are usually held in domestic science laboratories and are conducted for from one to three days. These demonstrators cooperate with the food administrators and with the women's committees of the county councils of defense, giving demonstrations before organized groups and at the grocery stores.

Another piece of extension work has been the giving of instructions in canning, drying, and egg preservation. In 1917, 2,040 volunteer demonstrators were trained at 25 two-day canning schools. These schools were held in 33 of the larger towns, utilizing domestic science laboratories in high schools. They were conducted by members of the staff of the home economics department of the College of Agriculture. Two of these schools, with a total attendance of 350, were held at the University of Nebraska for the special benefit of the students of the arts college. In 1918 a particular effort was made to reach the rural districts and the more sparsely settled portions of the State. During this season 479 demonstrations have been held by representatives of the extension and home economics department in the 70 counties not reached by home demonstration agents.

The past year has marked the beginning of city home demonstration work. In the city of Omaha the agent has appointed a chairman for every school district and these chairmen have in turn divided their districts into smaller units, appointing a representative in each unit. These unit representatives are agencies for the distribution of literature, for the advertising of meetings, and for the carrying on of the supervision of projects in their respective units. In the city of Lincoln the home demonstration agent has been the only agency attempting to reach the foreign population in the teaching of the use of substitutes. This she has accomplished by training volunteer workers and by utilizing volunteer demonstrators residing in the city who have had college training in home economics. The municipal canning kitchen established in Lincoln in June, 1918, has been very successful and very well received.

New phases of extension teaching in home economics in *Wisconsin* have been brought about through the work of the emergency home demonstration agents. In this State the leader has inaugurated a method of training mature housewives as volunteer teachers in the newer use of the war breads. This group of women in the town were first taught methods and trained members to do demonstrations. They then called meetings and trained members of the ward or block in methods of making war breads. They also organized the townships and rural school districts, going out in automobile squads to do the work throughout the county. These workers cooperated with the emergency home demonstration agents wherever there was one located in the county.

Texas Agricultural College, which does not offer courses in home economics, reports the following concerning the extension service:

Through our 50 county home demonstration agents, 10 urban agents, and 10 negro home demonstration agents, we have done work in all lines of food preservation and food conservation. I can not give a complete summary of this work until after November 1, when our annual report is made.

The *Agricultural College of Utah* sends in the following report:

With respect to new phases of work in our extension division the following are noted as the most important:

The appointment of 10 new home demonstrators, and the connection of all such home economic workers with the community centers.

A great increase in the work in urban districts. For example, two cities of over 25,000 have appointed demonstrators, and all the larger towns are organizing community centers, where not alone are demonstrations given in war cookery and dress economics, but in the right care of child life.

A very valuable bulletin was issued from the university in the spring on the care of infants, and one on the care of childhood and adolescence is now in the printer's hands.

The formation of the family type of farm bureaus all through the State.

The organization of local women into training classes under trained supervision.

These will serve to demonstrate the effect of the war upon the interests in home economics instruction.

In *Minnesota* the placing of home demonstration agents in the State was a new development of the extension teaching in home economics.

The *University of Wisconsin* offered an extension course for home economics workers which is described as follows:

A lecture and laboratory course dealing with the field of extension teaching; discussions on the organization of material and problems of cooperation, combined with laboratory practice in preparation of material for exhibits; lectures and demonstrations form a part of the course.

NEW PHASES OF HOME ECONOMICS.

There has come a broader vision of what home economics may mean among those who have the organization and administration of home economics departments.

At the *University of the State of Washington* this new work was inaugurated:

In 1917-18 a nurses course was added. It is now provided that students may take three years at the university followed by two years in a nurses training school and graduate at the end of five years as a registered nurse with a bachelor of science degree. The training course must be approved by the university faculty.

In the *Agricultural College of Colorado*:

Beginning with July 1, 1917, a budget was set aside for the initiation of experiment station work in home economics. The total allowance for the two

years beginning July 1, 1917, is \$3,500. This is to provide for salary, equipment of experimental laboratory, and supplies. In addition to that procured out of the budget named, some equipment has been loaned by other departments. Projects outlined include experimental cookery and research.

From the *University of Nebraska* it is reported that:

During 1917-18 the cadetting in the Lincoln schools of the students in the special methods course was developed under the joint supervision of a member of the staff of the home economics department of the university and the city supervisor. The usual difficulties were encountered, but their recognition has led to the formulation of a plan of cooperation which it is believed will be workable. This plan will be put in operation under the direction of an assistant professor in the university in charge of home economics education.

University of Wisconsin:

No better illustration of the new trend of home economics can be found than the following excerpt from the report of the home economics department of the University of Wisconsin:

The need for the best trained people that can be secured for the nursing service was recognized by the State legislature in its special session last February, at which time they passed a bill granting at least nine months' credit to college graduates who had taken approved laboratory courses during their college work. Detailed courses in biology and especially in home economics are recognized in the understanding of the law. The first group of university graduates began their work July 1, 1918. The university courses in home economics and medicine are cooperating in this work, so that the time required for fulfilling the requirements for the degrees of registered nurse will be made as short as possible. The preliminary courses especially designed for this course are those required in the general course in home economics.

To the student who elects this major the opportunity will be given to complete the requirements for the bachelor of science degree and acquire the nurse's certificate in less than the four college and two hospital years. This can be done by the student taking summer school work in addition to the regular work in the university year. With the regulation age limit for those entering the nursing profession this will allow the high-school girl to enter the university and prepare herself for the work of hospital nurse, public health nurse, social welfare nurse, or industrial nurse at practically the same age as she would have done if she had entered the three-year nursing course after graduating from the high school and reaching the age of 19.

A five-year nurses' course will be given at *Ohio State University*, and will parallel closely the first three years of the curriculum in home economics.

The *University of Iowa* will offer an intensive training course for women to become nurses on much the same plan as Vassar, except that the Iowa training course will be open also for the training of women who have had only two or three years of college work. The Red Cross has approved the program, and Mrs. Blodgett, who recently visited Iowa City, representing the Vassar camp, was enthusiastic over it. There is a prospect that the overflow from Vassar may be sent to Iowa. In Iowa there will be the advantage of the finest hospitals and equipment of the University School of Medicine, which, it will be remembered, ranks A by the standards of the American Medical Association.

At *Sioux Falls College* courses in food conservation were offered to men students and were appreciated by them.

In the *University of Nebraska* itinerant teacher training was begun in 1918, and 29 schools were visited. The work was largely in the nature of a survey, with the aim of determining what assistance could be given in developing home economics courses. A great variety in the time and content of courses and the adequacy of equipment was found. The attitude of both superintendent and teachers proved the value of this work, and it will be expanded in the future.

In *Mills College, California*, the course in house sanitation has been turned over to the physics department and will be called applied physics. A new course in weaving on a hand loom is now offered in order to train women as teachers in reconstruction work among the soldiers.

The *University of Wisconsin* offers the following among a number of new courses in the home economics department:

Reconstruction course. I; 5 cr. Teacher training course in hand crafts used in reconstruction camps, sanitariums, and hospitals.

(a) *Applied design.* 3 cr. Designs suitable to the special hand crafts to be taught. Lectures M. W. 11. Laboratory M. W. 8-10.

(b) *Hand crafts.* 2 cr. Practical problems in dyeing, netting, knitting, weaving, setting up a hand loom, pattern weaves, all-over hand border patterns; use of knitting machines and other craft appliances. Laboratory 8-10 F. S. 1:30-3:30 F.

At the *University of Indiana* a new graduate course was given in the care, management, and training of children below school age. One also on women and children in industry was offered.

The home economics department of the *Oregon Agricultural College* has these divisions: Household science, household art, and household administration. There is also an advanced course in textiles and a survey course in home economics. Institutional management which involves the managing of a boarding house which will accommodate 50 people is also organized.

In the *University of Minnesota* a course in commercial clothing manufacture was established last year. This course deals with the trade point of view in clothing construction problems. It is not a trade course, however, but is designed for those specializing in textiles and clothing work to increase speed and skill, to give insight into some of the economic problems of dressmaking work.

At the *University of Minnesota* a project work of "follow-up" teaching or training of teachers in service was carried out and will be continued this year. This work was done with the graduates of the previous year who were teaching in the State of Minnesota. The results have been of considerable moment with reference to assistance to young women in their teaching positions and help

for the teacher training section through a clearer understanding of the problems in the State.

At *Pratt Institute*, in the summer of 1917, the school ran the mess for 120 signal service corps men in training, at the same time instructing 20 of the men as cooks. The lunchroom was used, with some separate lessons in the class kitchens. Summer work for students of Pratt Institute was changed so as to require the planning, purchasing, preparation, and serving of three meals a day for 14 consecutive days for a family of not less than four.

Simmons College reports:

There is an increased desire on the part of students for greater specialization. This makes itself felt not so much by way of direct expression from the students as by the eagerness with which new specialized electives are chosen and the reluctance with which the conventional group of teaching electives is accepted. We now have fairly well organized groups of electives for vocations other than teaching, one leading to lunchroom or hospital work, one to extension work, and one to craft work with the handicapped. We are hoping to develop immediately work directed toward social service, such as the food work of children's clinics. Another field of work attractive to our home-economics students is public health work. Apparently our general home-economics training constitutes an excellent background for this work.

CHILD WELFARE COURSES.

The indications all point to a manifestation of interest in child welfare by the establishment of child welfare courses or lines of work in home economics divisions. Infant feeding has frequently been considered, but the feeding of the pre-school age child, the elementary school child, and the youth during the adolescent period has not been especially treated. Moreover, child welfare will not longer be interpreted to mean merely child feeding. Physical, mental, moral, and industrial welfare will hereafter be considered to be of equal interest.

Home economists will agree with the following statement from an address given by Miss Rita Oldham, president of the Association of Head Mistresses of England:

Nevertheless, of all the contributions to civilization made by women they must set highest motherhood and the nurture of their own children, which the majority of women would desire and consider the first claim upon them during a part of their lives.

What is the application? This: That in our schools the bulk of those they trained are consciously or unconsciously going forward to lives as wives and mothers. Is it not time that they set themselves to consider whether difference of function in the mass should not carry with it more differentiation of education than at present exists? Not for one moment should the education of women be inferior to that of men. But those who direct the education of girls should rid themselves of the idea from which some had already broken free, that the education of girls in the mass should be modeled upon or conditioned by that of boys.

What they need now is a completely free and unprejudiced review of the whole ground in the light of the gathered experience of 50 years.

NEWLY-ESTABLISHED, REORGANIZED DEPARTMENTS, AND DEPARTMENTS IN WHICH THERE HAS BEEN UNUSUAL GROWTH.

The enrollment at Simpson College, Keokuk, Iowa, has doubled in the past two years, and new courses have been organized in applied design, household management, home nursing, and in demonstrations and practice teaching.

A department of home economics was established in Drury College in 1917.

Home economics course was established at the University of Alabama in 1917.

The University of Georgia organized a department of home economics in the college of agriculture in 1918.

Courses in textiles and clothing were first established at Fairmount College, Wichita, Kans., in 1917.

Mrs. Lizzie Merrill Palmer, the widow of Senator Palmer of Michigan, has bequeathed the residue of her estate amounting to approximately \$2,000,000—

for the founding, endowing, and maintenance in the City of Detroit or the township of Greenfield, of a school to be known as the Merrill-Palmer Motherhood and Home Training School, at which, under such plan and system and under such rules and regulations as shall, in the judgment and wisdom of those upon whom the administration of this estate shall devolve, be adopted, girls and young women of the age of 10 years and upwards shall be developed, educated, trained, and disciplined with special reference to training them mentally, morally, physically, and religiously for the discharge of the function of wifehood and motherhood and the management, supervision, and inspiration of the home.—Journal of Home Economics, Oct., 1918.

In 1918 the University of Wisconsin added 14 new courses in home economics to meet the requirements of the training of teachers in home making under the Smith-Hughes Act.

The Agricultural College of Utah reports that—

The department is undergoing a process of reorganization; consequently it is more of plan rather than performance that can be reported, though the great success which attended the introduction of lecture courses last year on human efficiency and mothercraft vouches for the need they meet. Out of a total registration of 180 students in the whole department, 130 entered these courses in an institution where courses are entirely elective.

The most successful establishment also of a practice house in October, 1917, calls for recognition. Thirty senior students and 12 high-school teachers passed through it during the nine months it was open. The former for periods of six weeks and the latter for selected periods of from two to three weeks, during which those who attended during the term had all their expenses paid by their school boards.

In the Connecticut Agricultural College the course of study has been very materially changed to provide for training of the young woman along various lines, first, to teach home economics in the public schools; second, to be extension workers; third and fourth, the col-

lege offered courses in gardening for those who were to act as garden supervisors during the summer and also courses in war cooking and canning.

The Maryland Agricultural College advertises courses in home economics for the first time in the history of that institution.

The home economics department of the University of South Dakota was reorganized the second semester of last year, and courses in the practice house management, practice teaching, and a special course in home nursing were installed.

The department of home economics was established under that name in May, 1916, in the University of California. An adequate building to house the two divisions created at the same time—household art and household science—was erected immediately, and in use during the summer session of 1916.

The staff of household science has added to the two original assistant professors two instructors and one graduate assistant, and has in prospect another assistant professor or instructor.

The University of California offers the following:

Fifth year professional curricula.—Four distinct professional fifth year requirements are contemplated:

1. The teacher's practice year, now in successful operation.
2. The hospital dietitian's practice year, so far not satisfactorily developed.
3. The extension worker's practice year; planned completely, begun in September, 1918.
4. The research student's training year, in successful operation.

The University of Tennessee reports as follows:

In the fall of 1916 we began to require one year of high-school sewing for admission to our freshman class in elementary clothing and dress design, and one year of high-school cookery for admission to our sophomore class in tool production and service. For these students who have had no work in the high school we offer one semester noncredit course in sewing and cookery.

The department was reorganized in 1916-17. Five four-year curricula are offered: 1. The teachers' curriculum. 2. The general curriculum. 3. Institutional management. 4. Food and nutrition. 5. Textile merchandising. The latter is to train students to fill executive positions in department stores, such as that of educational directors, welfare workers, personal service workers, etc. A large part of the work is given in the college of business administration, and opportunity is given for practice work in department stores under supervision. Thus an opportunity is given for an outlet for textile and clothing students such as has been provided for food students in institutional management.

Lincoln College, Lincoln, Ill., becomes a junior college and will hereafter place special stress upon the home economics courses.

The department of home economics at the University of Arizona was made into a school, and a similar recognition was given home economics in the Florida State College for Women, at which place the head of the department of home economics was made the dean of the school.

Delaware College for women has rearranged the curriculum in home economics and accepted the conditions imposed by the Smith-Hughes Act.

Kingfisher (Okla.) College organized home economics in 1916 and placed special stress on diets for children and invalids and home care of the sick.

SURVEYS.

Home economics has been recognized as of special importance by being directly represented in several recent educational surveys—the survey of the public school system of San Francisco; the survey of public education in the State of South Dakota; the Tennessee educational survey; the survey of the schools of Elyria, Ohio; and the survey of the schools of Columbia, S. C.

In all of these survey reports home economics has been given separate chapters or sections of chapters, thus enabling those interested to announce certain principles and policies for the organization and administration of the courses in universities, colleges, normal schools, and public elementary and secondary schools.

ORGANIZATION OF WOMEN INTERESTED IN HOME ECONOMICS EDUCATION.

So rapidly has interest in home economics grown that one association has not been found adequate for the conferences needed by teachers of this subject; hence State associations of home economics and regional associations have been organized. These smaller organizations within States frequently meet with the State educational association and have representation upon its general program.

In many of the larger cities, such as Philadelphia, New York, and Chicago, there are strong city associations of home economics.

Home economics teachers in land-grant colleges were permitted to organize a division of home economics in the college section of the American Association of Agricultural Colleges and Experiment Stations.

The American Home Economics Association holds an annual meeting and also presents programs in connection with the National Education Association's annual meeting and with the Department of Superintendence of the National Education Association.

The Southern Home Economics Association has held one annual meeting at Macon, Ga., and a second meeting at Blue Ridge, N. C.

The Western Home Economics Association was organized and held one meeting in Portland, Oreg., in July, 1917.

Conferences of supervisors of home economics in city schools were called by the Commissioner of Education and met in Portland, Oreg., and in New York City.

HOME ECONOMICS AND NATIONAL SERVICE.

Notable contributions to studies in the cost of living, of the dietary habits of American families, to instruction in food conservation, to propaganda for increased care of children, and to the problems relating to the effect of the war upon living conditions in congested sections of the cities have been made by home-economics women.

Many valuable leaflets, circulars, and bulletins relating to modifications of food preparations to meet war food conditions have been prepared by teachers of foods and nutrition.

Dietitians for the base hospitals in America and for the Army hospitals in France and Italy have been drawn from the ranks of home economics teachers.

Many home economics women have gone into the service as Y. M. C. A. canteen workers or as managers of the Y. W. C. A. hostess houses at Army camps.

Many other home economics women have also been called into Washington to aid in preparing material for publication by the American Red Cross Association, the Food Administration, and the Department of Agriculture.

Two honor sororities have been established in the colleges of the country, and through them certain studies of economic importance have been made for which there was no other organized agency.

A new field for home economics women is that of financial advisers of other women. Banks are finding that it pays to have their customers given expert advice in budget making.

LEGISLATION RELATING TO HOME ECONOMICS.

The most notable Federal legislation relating to home economics was that known as the Smith-Hughes Act, by which Federal money was appropriated to assist in the establishment and maintenance of vocational schools in industry, home economics, trade, and agriculture, and which further provided national aid for training teachers for these vocational schools.

This Federal legislation has made necessary further legislation by the legislatures of the various States whereby they have accepted the provisions of the bill and have made appropriations to match the Federal money granted.

The Smith-Hughes bill was signed by President Wilson February 23, 1917, and when a Federal board was appointed they organized and appointed a director, who in turn appointed an assistant director to be in charge of vocational home economics and the administration of that phase of work done under the board.

A complete and final interpretation of the law as it relates to home economics education has not, as yet, been pronounced.

An act of Congress which had important bearing upon home economics education was that which, through an emergency appropriation for the Department of Agriculture, made possible the maintenance of urban extension in home economics. Urban agents have been appointed in many cities.

These various recognitions of the need of more general intelligence relating to home making have greatly increased the demand for specially trained home economics women. The demand has exceeded the supply.

CHAPTER XV.

HOME EDUCATION.

By ELLEN C. LOMBARD.
Secretary, Home Education Division.

The conservation of childhood and youth is a problem that is occupying the attention of educators, publicists and welfare workers in this and other countries. Conservation of child life is not separable from the problem of conservation of womanhood. During the past two years greater service was demanded from the women throughout the country. Some were called upon to take the places of men who had joined the army; some were left to assume the double duties of father and mother. Help must be given to broaden the outlook of the women, many of whom live in homes so isolated that opportunities for development are lacking. The viewpoint of the men who have been across the sea has been liberalized by contact with foreign lands and peoples. It will help in the readjustment of the returning forces if each agency of general welfare will consider the needs of the home in working out programs.

ENGLAND.

Schools for mothers.—In England and Wales schools for mothers have been authorized under the Government board of education. Under the new regulation, existing or contemplated schools for mothers will receive Government grant-aid each year for promoting the care, training and physical care of infants and young children.

Schools for mothers are described as educational institutions providing training and instruction for mothers in the care and management of infant and young children. Instruction is to be under three heads: Systematic classes, home visiting, and infant consultation. Provision of specific medical or surgical care is to be only incidental. Payments of grants will be made upon the basis of the work done by the institution during the previous year. This work will be co-ordinated with existing institutions, such as maternity centers, baby clinics, and infant dispensaries.

A writer in "The Home Nursery School" points out that the parents' responsibilities do not end in bringing children into the world, feeding and clothing them, and sending them to school. The chil-

dren have a right to a definite place in the home. This is universally acknowledged among the middle and upper classes. The children have their nursery, their own room, where they keep their own things, and, within certain well-defined limits, do as they like. You do not find these children in the streets after school hours, and this not only because they are not allowed there, but because they find in their homes sufficient interests to keep them there. Then he speaks of the impossibility of setting aside a room in the workingman's home solely for the use of his children, and remarks that the inability to provide such an apartment is not a sufficient reason for giving the children no place at all. He further says:

In these days of self-sacrifice when those among us who are wise look into the future with longing and hope and plan for a better world, we must strain every nerve to provide the best we can for the children, realizing that it is they who will come into the good heritage purchased by the blood of their fathers. They are the pivot on which all will turn, and we must do our part now to give them the best education possible, built up on the strongest, deepest religious basis. So we see clearly that they must have their rights, their share in the home, a definite place that belongs to them.

UNITED STATES.

In the United States, governmental, State, and local child-welfare agencies are devoting their energies to building up a strong and intelligent generation.

An appeal to conserve childhood and youth has been made to business men, to parents, to teachers, and to churchmen by Margaret Slattery in *The Second Line of Defense*. She says:

The American home needs once more to be the center of inspiration for deeds that must be done for the new liberty and the true democracy, struggling more desperately than ever it has struggled since the world began to free itself from the bonds that bind. The intelligent American home created by two people who have had every material advantage is failing in its duty if, in these days when the world fights for the very existence of the principle of the right of the weak, they do not instill into the hearts of their children the fundamental principle upon which brotherhood is built.

If parents permit their children to grow up in an atmosphere of autocracy and special privilege, it will mean not only shrinking their souls, warping their minds, cheating them of their rights as American children, but it will mean threatening the future of the Nation with more dire calamity than it faces to-day overseas.

America calls upon parents * * * to look to their own sons and daughters; to teach them the meaning of love for God and love for man; to train them in ethics; to train them in a sincere hatred of shams, a deep love of truth, a passion for justice; to show them the folly of extravagance. * * * It is their right to be taught from the very beginning that no one on earth can legitimately get "something for nothing," that every human being owes something to his brother, and that work is the greatest gift of God.

WORK OF FEDERAL GOVERNMENT IN HOME EDUCATION.

Department of the Interior.—The Federal Government through the home education division of the Bureau of Education has reached over a half million homes with some kind of educational material.

Through the cooperation of over 75,000 women, especially selected because of their qualifications in rural districts in 2,100 counties, it became possible to reach more than 70,000 mothers of little children under 3 years of age, with information regarding the care and training of the children.

Several publications were used to carry on the work for child welfare, among them being:

Care of the Baby; Save the Baby; Duty of Parents in Regard to Sex; Care of the Baby in Hot Weather; Reprint of the Chapter on Home Education, Commissioner's Annual Report, 1916; Reading Course for Parents; Neighborhood Play; Circular Letter No. 1, 1916-1917, Problems of the Boy and Girl in the Home; Circular Letter No. 3, 1916-1917, Problems of the Foreign Mother in the Home; How to Select Food; One Thousand Good Books for Children.

Field work for the extension of home education.—Three tours in the interest of home education and child welfare were made. Special collaborators held meetings in the following towns and cities: Leesburg, Fredericksburg, Danville, Bristol, and Abingdon, Va.; Asheville, Lincolnton, Wadesboro, and Greensboro, N. C.; Rock Hill, Florence, Columbia, Lancaster, and Charleston, S. C.; Augusta, Atlanta, Macon, Milledgeville, Dallas, Marietta, and Fairly, Ga.; Tallahassee, Tampa, Miami, Eustis, Tavares, Avon Park, Clearwater, Clermont, St. Petersburg, Haines City, Monte Verde, Fort Pierce, and West Palm Beach, Fla.; Montgomery and Birmingham, Ala.; Columbus, Miss.; and Chattanooga and Nashville, Tenn. The result of this work was evident in the organization of parent-teacher associations.

Some of the typical requests for help have been for material on subjects as follows: Something to help bring up the children right; material to better the home; literature on moral training; on home making and child nurture; home study for boys and girls; bulletins on home matters; literature for a population of Swedes and Cornish, German, Dutch, and Irish; care of the sick; books suitable to children who have completed the common-school course; help for bringing the home and the school together; reading matter on plays and games; literature on the care and training of children; outlines for programs for child study; literature for the formation of parent-teacher associations where there is no church, no society of any kind.

Home reading circle.—In order to answer some of the demands it was necessary to institute the home reading circle with selected

courses on various subjects. Committees of specialists selected the books in these courses with the cooperation of the Bureau of Education.

Three new courses were issued during 1916-1918 in addition to seven courses previously distributed. They are listed as follows:

Course No. 7, Thirty World Heroes: 1. Moses: Exodus and Deuteronomy; 2. Socrates: Dialogues and Discourses of Plato, Socrates; 3. Alexander: Alexander the Great; 4. Julius Caesar: Seven Roman Statesmen, Life of Julius Caesar; 5. Jesus Christ: The Syrian Christ, Harmony of the Gospels; 6. St. Paul; St. Paul the Traveler and Roman Citizen; 7. Marcus Aurelius: Golden Book of Marcus Aurelius, Marcus Aurelius and the Later Stoics; 8. St. Augustine: Confessions; 9. Mohammed: Heroes and Hero Worship, Mohammed and His Power; 10. Alfred the Great: Story of King Alfred, Life and Times of Alfred the Great; 11. Joan of Arc: Jeanne D'Arc, Joan of Arc; 12. Dante: Makers of Florence, Vision of Dante Alighieri; 13. Michael Angelo: Makers of Florence, Michael Angelo; 14. St. Francis of Assisi: Everybody's St. Francis, Life of Francis of Assisi; 15. William of Orange: William the Silent, Rise of the Dutch Republic; 16. Galileo: Great Astronomers; 17. Shakespeare: Shakespeare, His Mind and Art, Life of Shakespeare; 18. Molière: Molière, His Life and Works; 19. Cromwell: Life of Cromwell; 20. Napoleon: History of Napoleon Bonaparte, Napoleon—Warrior and Ruler; 21. Pestalozzi: Pestalozzi, His Life and Work; 22. Goethe: Life of Goethe; 23. Rousseau: Rousseau and Naturalism in Life and Thought; 24. Darwin: Life and Letters; 25. Scott: More Than Conquerors, Life of Scott; 26. Livingstone: More Than Conquerors, Personal Life of David Livingstone; 27. Florence Nightingale: Life of Florence Nightingale; 28. Elizabeth Frye: Story of Elizabeth Frye; 29. Pasteur: More Than Conquerors, Life of Pasteur; 30. Tolstoi, the Man and His Message, Reminiscences.

Reading Course No. 9, Thirty American Heroes: 1. Columbus: Columbus the Discoverer; 2. Father Marquette: Heroes of the Middle West, Father Marquette; 3. William Penn: William Penn, The True William Penn; 4. Washington: Washington, A Virginia Cavalier, George Washington; 5. Franklin: Benjamin Franklin, Autobiography of Franklin, Life of Franklin; 6. Hamilton: Alexander Hamilton; 7. Jefferson: Life of Jefferson, Life and Writings of Thomas Jefferson; 8. Daniel Boone: Daniel Boone, Daniel Boone and the Wilderness Road; 9. George Rogers Clark: How George Rogers Clark Won the Northwest, The Winning of the West; 10. Lincoln: Men Who Made the Nation, A Short Life of Lincoln; 11. Lee: Life of Lee, Lee, the American; 12. Horace Mann: Horace Mann, Educator, Patriot and Reformer; 13. Hawthorne: Life of Hawthorne; 14. Parkman: Life of Parkman; 15. Sidney Lanier: Life of Sidney Lanier; 16. Mark Twain: Boy's Life of Mark Twain, Life of Mark Twain; 17. Morse: Masters of Space, Letters and Journals; 18. Fulton: Robert Fulton; 19. McCormick: Cyrus Hall McCormick; 20. Edison: Thomas A. Edison, Life of Edison; 21. Booker T. Washington: Up From Slavery; 22. Trudeau: Autobiography of Edward L. Trudeau; 23. Jacob Riis: The Making of an American; 24. John Muir: Story of My Boyhood and Youth; 25. John Burroughs: Our Friend, John Burroughs; 26. Mary Lyon: Life of Mary Lyon; 27. Frances E. Willard: Life of Frances Willard; 28. Clara Barton: Life of Clara Barton; 29. Alice Freeman Palmer: Life of Alice Freeman Palmer; 30. Anna Shaw: Story of a Pioneer.

Reading Course No. 10, American History: 1. European Background of American History; 2. The Colonies; 3. Montcalm and Wolfe; 4. Old Virginia and Her Neighbors; 5. Beginnings of New England; 6. Men, Women, and Manners in Colonial Times; 7. Dutch and Quaker Colonies in America; 8. The

American Revolution; 9. Lecky's American Revolution; 10. Story of the Revolution; 11. Critical Period of American History; 12. Henry Clay; 13. Life of George Washington; 14. Rise of the New West; 15. Winning of the West; 16. Economic History of the United States; 17. Division and Reunion; 18. The Lower South in American History; 19. Abraham Lincoln; 20. Reconstruction, Political and Economic; 21. National Problems (1884-1897); 22. America as a World Power; 23. America in Ferment.

There are about 8,000 readers now enrolled in the reading circle. Among these are men and women, boys and girls, in almost every profession and occupation. In New York State 720 are enrolled; Pennsylvania, 522; California, 477; Ohio, 440; Massachusetts, 418; New Jersey, 346; Oregon, 286. Enrollments have been made in Alaska, Canada, Canal Zone, China, France, Hawaii, Porto Rico, and Philippine Islands.

State libraries cooperate.—State libraries will furnish the books for readers in the reading circle of the Bureau of Education and cooperate in every way as far as their funds permit, as follows: California, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Jersey, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming.

Many local libraries have taken active part in enlisting readers and in securing the books.

Reading circles formed.—Reading circles have been formed by individuals, teachers, and librarians. In California the largest circle has been in existence nearly three years. It has an enrollment of 108 mothers and teachers, and an active membership of 70. The success of this circle is due to the leadership.

THE COMMUNITY PROBLEM.

Cooperation between home and school was further developed throughout the States during the years 1916-17, 1917-18, and is becoming a recognized necessity in communities of thinking parents. Education in the home must be supplemented by education in the school, and vice versa. When this is sufficiently understood there will be fewer misunderstandings between parents and teachers and greater intelligence in the training of the children at home and at school.

Parent-teacher associations.—An increased number of parent-teacher associations has been reported and there is a noticeable attempt to serve the community in a better and more effective way in the work of these organizations.

Two States, Michigan and Kentucky, have effected State organizations of parent-teacher associations. Local organizations of parent-

teacher associations in towns and cities have increased in number according to reports received by the Bureau of Education, which, through the cooperation of the woman's department of the National Council of Defense, is preparing a list of such organizations. About 7,000 organizations are engaged in activities relating to the home and the school. To promote this work the Bureau of Education, through its home education division, has sent out publications as follows:

How to Organize Parent-Teacher Associations; How the Parent-Teacher Association Helps the Home, the School, and the Community; Suggestions for a Program; Keeping the Children in School; Suggestions for War-Time Activities of Parent-Teacher Associations; Suggestions for Leisure Hours of Children; The Des Moines Plan of Parent-Teacher Associations; Aims and Purposes of Education.

The National Congress of Mothers and Parent-teacher Associations has cooperated with the Bureau of Education since 1913 in carrying on the work of home education. This organization has given material aid as well as publications to further the work.

Through the kindergarten division of the Bureau of Education, 55 circular letters were issued on the training of little children. These letters, prepared by mothers who were trained as kindergartners, deal with the following subjects:

Story-telling for Patriotism; The Child is Not a Possession; Love and Patience Accomplish Most with Children; How the Children Keep a Weather Calendar; Give Children Toys which Answer Their Needs; The Intelligent Mother May Guide a Child's Play.

A notable publication of the year 1917 on the function and development of parent-teacher associations and the reasons why they should be organized in every school district was Angelo Patri's *A Schoolmaster of the Great City*.

The author's own experience as pupil, teacher, and school principal is the basis upon which he has founded his opinions and developed his work. He discovered that the problems of the school were community problems; that "the culture of children would have to be a cooperative effort between the people and the teachers." In a chapter on "The parents at work" all of the essentials are presented for developing the work of parents and teachers, gradually drawing together the home and school, and bringing the collective influences to bear upon the education of the children and their natural development.

During 1917 parents' meetings in a New York City school were the outcome of this realization. It has been generally conceded that play and recreation have a direct bearing upon the healthy life of the community. It is with this in view that the Bureau of Education has sent out letters with suggestions regarding the "Leisure

hours of children." No less important are the hours of little children when most of their activities are connected with play.

The Committee on Public Information of the city of Boston, through its women's committee, issued leaflets in which are suggested Home Playthings for Children—Leaflet No. 1, the first three years, and Leaflet No. 2, play and work for children from 3 to 6 years old. These leaflets, distributed at the Children's House in Boston, offer rich opportunity for the development of the children.

The following two lists of toys and objects are printed in leaflet form, Nos. 1 and 2:

Toys for the first three years.—Ball, colored worsted ball hung above crib (to look at or to play with); rattle, celluloid dumb-bell (to hold and to shake); prisms, hung in sunny window (for color); cloth bag filled with newspaper, hung in crib (to kick); other objects above crib (to reach); rubber doll or animal ("to chew and to admire"); floating bath toys (to divert); big soft ball (to creep after); small celluloid ball (to bounce); cloth picture books; rag doll (to hug and love); soft animals (Teddy bears, cats, etc.); simple wooden carts (to drag about); simple wooden animals (to drag about); kiddy-kar, or rocking-horse chair (for physical exercise and for fun).

Toys for children from 3 to 6 years of age.—For playing house—dolls (large and small), furniture (beds, tables, chairs, etc., well made), carriage, tea sets, stove, kitchen dishes (tin), carpet sweeper, tub washboard, etc.; for farming—barn and barnyard animals in plenty, Noah's arks, wagons (with horses to harness), wheelbarrows, wagons (large), reins; for transportation—trains of cars, model wood toys (trains, motors, etc.); for building—blocks (well-made cubes, bricks, etc.); games—picture-puzzle blocks, tops, tenpins, balls (large and small), bean bags, soap-bubble pipes (clay) hand-work materials (black-board-fastened to wall), large colored crayons, large pencils, blunt scissors, plasticine or clay, paints (tube paints, large Japanese brush), pictures and paste for scrapbook making, paper and cardboard to make toys, toy making from boxes and other materials in the home, materials from out of doors (seed stringing, burdock furniture making, acorn tops, tea sets, etc.).

Department of Labor.—Education in the home has been stimulated by the movements to conserve child life. Literature on the care of babies has been issued by Government and State authorities, so that every mother in every State may learn about the needs of her child. The "Children's year," instituted in 1917 by the Children's Bureau of the United States Department of Labor, has done much to bring communities to a realization of the value of child life and has helped in establishing clinics where babies have been weighed and measured. Parents and teachers have cooperated in this form of child-welfare work. The program included the saving of 100,000 babies during the year. With the cooperation of the woman's committee of the National Council of Defense local committees were formed in each State and each State was assigned its quota of children to be saved.

To assist in carrying on this work the Department of Labor issued leaflets and circular letters. These publications are a contribution

to home education which are valuable in the conservation of child life.

Some of the leaflets are:

Children's Year Working Program; Children's Health Centers; The Public Health Nurse; Saving Mothers; The Children's Year Campaign; Save 100,000 Babies; April and May Weighing and Measuring Test, Part 1; April and May Weighing and Measuring Test, Part 2; April and May Weighing and Measuring Test, Part 3.

Through the press service the Children's Bureau issued circular letters of value to mothers under the following headings:

American Mothers, Attention!; Doing War Work at Home; When to Begin the Care of a Baby; American Mothers, Will You Help "To Hold the Line"?; American Mothers, Uncle Sam is Depending on You!; Children and War Food Substitutes; American Mothers, Watch Your Children's Teeth!; The Nation's Eyes; The Family Purse and the Children's Food; War Savings and Children's Summer Clothing; The Fourth of July and Baby Saving; Keeping Baby Fit in Summer; The Mother and the Problem of Child Labor; Traveling with Children; Patriotism and Play; What One Family is Doing for Play Week; Play and War Savings; Teaching Children to Play the Game; When is a Child Healthy?; The Good Manners of To-day; and "Carrying on" the Baby Test.

Department of Agriculture.—The care of the family has received much attention by the United States Food Administration. The necessary restrictions incident to war conditions have created a demand for information regarding food. Food leaflets have been issued regarding Milk, Vegetables in Winter, Potatoes, Dried Peas and Beans, Save Sugar, Wheatless Breads and Cakes, Fresh Vegetables, Use More Fish, Rice, Hominy, Start the Day Right, A Whole Dinner in a Dish, Choose Your Food Wisely, Instead of Meat, Food for Your Children, etc. The Food Thrift Series has been helpful to the home-maker.

Department of Commerce.—The Bureau of Standards of the Department of Commerce has issued a bulletin on Materials for the Household dealing with structural materials, flexible materials, stationery cleansing agents, fuels, etc.

Treasury Department.—A publication of the Public Health Service which is much needed in the homes is the one on Prevention of Disease and Care of the Sick which has recently been published.

STATE BOARDS OF HEALTH AID HOME EDUCATION.

Some of the States through their boards of health have supplied the homes during the past two years with educational material regarding the care and feeding of children. The following States have issued Mothers' Handbooks which are now available under various titles: Indiana, Massachusetts, Mississippi, Montana, Nebraska, New York, North Carolina, South Dakota, Utah, Washington, Wisconsin.

It is evident that State boards of health are supplying in these bulletins ample information regarding the value and need of birth registration and of how infant mortality may be reduced. Scientific knowledge for the mother regarding her own care and the care of her baby is included in all of these bulletins. At least two States make use of Dr. L. Emmett Holt's *Save the Babies*, published by the American Medical Association.

The baby's food is given much attention and there is always included a section on the preparation of artificial food and the dangers to be avoided. There is a certain uniformity in the form of these handbooks indicating perhaps a concerted action on the part of State boards of health to provide the home with scientific information in the effort to conserve human life.

Kansas has included some suggestions on the physical, mental, moral, and social development of the child at different periods, also suggestions on education through play.

Many of the State boards of health, not having handbooks devoted to child welfare, have included in their monthly publications articles on the care and feeding of babies. Several bulletins of the West Virginia State Department of Health have been almost exclusively devoted to the care of babies. Pennsylvania has issued several bulletins devoted to infant life.

Another publication on child care that finds its way into the homes is in the form of leaflets and letters. At least two States send out letters to expectant mothers. Massachusetts, New York, and Pennsylvania send literature in foreign languages.

The following list of publications for home use has been made from material available in various States during 1916-1918. It is probable that there is still other material issued by the States which is not listed:

BABY BULLETINS.

California.—Saving the Babies; Children's Year Bulletin; Childhood and Health.

Connecticut.—Uses Government bulletins.

Idaho.—If You Have a Baby; The Child.

Illinois.—Our Babies; Better Babies; Register the Baby's Birth; Prevention of Blindness in Babies.

Iowa.—His Lordship the Baby; Save the Babies; Measles, Bulletin No. 4.

Kansas.—Conservation of Child Life; Letters to Expectant Mothers; Kansas Mothers' Book.

Maine.—Feeding and Care of the Baby; Hints on Nursing the Baby, Circular 27; Diet of Children; Health of Home and School, Leaflets Nos. 24, 26, 21.

Massachusetts.—Food for Children Two to Six Years Old; Baby and You; Letter to an Expectant Mother; For Mothers with Babies (in seven foreign languages).

Montana.—Care of Children in War Time.

Nebraska.—Your Baby, How to Keep It Well, 1917.

New Jersey.—The Public Health Nurse; Is Your Baby Registered; Saving Mothers.

New York.—Save the Children.

North Carolina.—How to Keep Your Baby Well; Save the Babies; Baby Welfare.

Oregon.—To Expectant Mothers; Are Your Baby's Eyes Sore?

Utah.—Save the Babies.

Washington.—Is Your Baby Healthy?

LEAFLETS AND CIRCULARS ON CHILD CARE.

Idaho.—If You Have a Baby.

Maine.—Diet for the Child (12 to 18 months); Diet for the Child (18 months to 3 years); Diet for the Child (3 to 6 years); Leaflet No. 21, Health of Home and School, Emergencies in Childhood; Leaflet No. 24, Health of Home and School; Leaflet No. 26, Guideboards to Infant Welfare; Circular No. 271, Hints on Nursing the Baby.

Massachusetts.—List of Illustrated Lectures and Moving Pictures on Health Topics. Films on child welfare are available on Bringing It Home, The Long Versus the Short Hand, etc.; For Mothers with Little Babies (translations in French German, Greek, Italian, Polish, Portuguese, and Yiddish); A Health Creed for Massachusetts Boys and Girls; Food for Children from Two to Six Years Old.

New Jersey.—The Public Health Nurse; Saving Babies a Community Problem; Is Your Baby Registered?; Saving Mothers.

New York.—Special Bulletin No. 1, Infant Welfare Campaigns; Special Bulletin No. 2, Before the Baby Comes; Circular No. 3, The New-Born Baby; Circular No. 4, Artificial or Bottle Feeding; Circular No. 5, The Summer Care of Babies; Circular No. 6, Care of Milk in the Home; Circular No. 7, From the Bottle to Table Food; Circular No. 8, Avoid Infection; Circular No. 14, 1917, The Conduct of an Isolation Period for Communicable Diseases in the Home; Circular No. 19, 1917, Amusements for Convalescent Children; Circular No. 22, 1917, Sore Eyes of New-born Babies.

BULLETINS ON CHILD WELFARE.

North Carolina.—Special Bulletin No. 50, How to Keep Your Baby Well; Special Bulletin No. 75, Baby Welfare.

North Dakota.—Child Conservation.

Oregon.—To Expectant Mothers; Are Your Baby's Eyes Sore?

Pennsylvania.—Form 20, Save the Babies (published in English, German, Italian, Polish, Slovak, Yiddish, Lithuanian, and Magyar); Form 45, Files; Form 47, Birth Registration (published in English, German, Italian, Polish, and Slovak); Form 48, Home Milk Supply (published in English, German, Italian, Polish, and Slovak); Form 49, Blindness in Infants.

South Dakota.—Save the Babies.

Washington.—Is Your Baby Healthy?

Wisconsin.—Baby Bulletin.

The divisions of child hygiene in the Kansas and Massachusetts State Departments of Health issue letters to expectant mothers once each month on prenatal care.

In New York and Kansas "Little Mothers' Leagues" have been organized under the direction of the State departments. Leaflets are issued to help in organizing young girls in helping their parents on the care and training of young children.

A recent bulletin on the Care of Children in Wartime, issued by the Montana State Board of Health, has some interesting and valuable data on the "Lessons taught by the war," "Infant mortality," "Lax school laws," and "Feeding of school children." Montana has also issued a useful outline for a Study Course on Public Health. It contains an outline for the study of many subjects relating to family life, among them being "The homemakers' responsibility," "The care of food," "Health and the house," etc.

In many States the bulletins of the State boards of health, issued regularly during the past two years, contain material especially prepared for the home. The following partial list will give an idea of what some States are doing:

Kansas.—Bulletin, Vol. XII, No. 12, 1917; The Conservation of Child Life, (1) "Reduction of the infant mortality rate; Blank for child conservation house-to-house survey," etc. (2) "Care and treatment of dependent and crippled children"; (3) "Public health protection of school children"; Bulletin, Vol. XIV, No. 7, July, 1918, When and How to Tell the Story of Life; Bulletin, Vol. XIII, No. 12, 1917; The Conservation of Child Life.

Kentucky.—Bulletin, Vol. V, May, 1915, Household Economics, (3) "Making a home," (5) "Needs of the home," (6) "Suggestions for study," (10) "A modern farm kitchen," (11) "Rights of the child," (12) "Care of the children in the home."

Maine.—Bulletin, Vol. IV, No. 2, March, 1916.

Michigan.—Public Health Bulletin, Vol. VI, No. 4, April, 1918, "General care of the baby," "Child-welfare campaign," "Problem of clothes for little ones," "Child welfare," etc.

New Hampshire.—Bulletin, Vol. IV, No. 6, April, 1916, "The summer care of infants," "Save the babies' eyes," etc.

New York.—Health News, new series, Vol. XIII, No. 5, May, 1918, Save the Children, etc.; Special Bulletin No. 1; Infant Welfare Campaigns; Circular No. 27, Milk and Its Relation to Health.

North Dakota.—Bulletin, Vol. II, No. 2, April, 1918, child welfare number.

Pennsylvania.—Bulletin, No. 16, The Conservation of Infant Life in Pennsylvania; Bulletin No. 31, The Baby the Most Important Problem in Modern Life; Bulletin No. 34, How to Organize a Baby-Saving Show; Bulletin No. 69, Flies a Factor in Infant Mortality.

West Virginia.—Bulletin, Vol. IV, No. 8, July, 1917, "Care of the baby," "Register your baby," etc.; Bulletin, Vol. V, No. 8, July, 1918, "The baby saving campaign," "Save the babies," "The care of the babies," etc.; Bulletin, Vol. V, No. 2, April, 1918, "A drive for baby saving," "Motherhood and preparation for it," "Baby welfare," etc.

CHAPTER XVI.

EDUCATIONAL HYGIENE.

By WILLARD S. SMALL.

Specialist in School Hygiene, Bureau of Education.

CONTENTS.—Physical education in the preparation of teachers.—Malnutrition and the nutrition class.—Health supervision.—Closing school as a measure for controlling epidemics.—Eye hygiene.—Oral hygiene.—State legislation for physical education.—The Nation's need of physical education.—Physical education and military training.

PHYSICAL EDUCATION IN THE PREPARATION OF TEACHERS.

Effective physical education of the children of the elementary schools will always be conditioned largely upon the regular classroom teachers. Obviously physical education must have a large place in the preparation of teachers if they are to play well their part in the conservation of the physical resources of childhood. It must be recognized that this part of the preparation of teachers is fundamental and vital, not an accessory to the formularies of mental training and discipline.

There are about 250 normal schools in the country—State, county, and city schools. Returns from 145 of these to an inquiry by the Bureau of Education show the following facts as to extent and character of physical education:

1. Number requiring health certificate at entrance	44
2. Number requiring medical examination	68
3. Number requiring health certificate for graduation	24
4. Number requiring physical exercise of all students	124
Gymnastics	100
Dancing	55
Athletics	47
Games	102
5. Number requiring practice teaching:	
(a) In calisthenics	74
(b) In gymnastics	68
(c) In dancing	63
(d) In athletics	40
(e) In games	91
6. Number having special teachers of physical training:	
(a) Male	53
(b) Female	111
7. Number having gymnasiums	110
8. Number having swimming-pools	28

The first striking fact is the relative neglect of physical standards for teachers. Less than one-third require a health certificate for entrance; less than one-half require a medical (or physical) examination at any time; just one-sixth require a health certificate for graduation. It may be noted in passing that the health certificate required is rather a certificate of freedom from disease than a certificate of vigorous health.

Two important omissions will be noted: The time devoted to physical education and the kind of instruction in health habits and health knowledge.

The encouraging things in this report are the number requiring physical exercise of all students, the emphasis upon games, both in required exercise and in practice teaching, and the number having gymnasiums. There is a distinct gain in these respects in the last 10 years.

From these returns and from other inquiries, studies, and observations two important generalizations may be made:

1. In a few normal schools a broad and true conception of physical education prevails. It is recognized as organic and general, not as specialized psychomotor training. It sees that its job is to know how children grow into health and to control the conditions and practices that are favorable or unfavorable to such growth. And it sees, further, that the way to make such principles effective in the schools is to make them effective in the preparation of teachers.

Certainly the following elements enter into such a program: Physico-medical examination at entrance and annually, at least, during the course; health certificate for graduation; daily physical exercise, at least one hour, of an enlivening and joy-producing kind; practice teaching of such exercise for children; playgrounds and gymnasiums necessary for such exercise; practical study of hygiene as exemplified in school life and environment; instruction in normal physical diagnosis.

2. The second conclusion is that complete fulfillment of these conditions in normal schools is rare. A few schools meet all the conditions with a considerable degree of thoroughness; more meet some of the conditions well and are short on the rest or meet them inadequately; and others meet all these conditions inadequately or not at all.

There is, however, light upon the horizon. Most of the newly enacted laws interpret physical education in the broad sense indicated above. Some of these, tho compulsory in form, are hardly more than permissive in substance, but they all point to a new emphasis on physical education in the normal schools. Several of them specifically include the normal schools in the application of the law. In other States, some normal schools without the stimulus of

law are doing excellent work. In many instances readjustment of programs and ideals will be necessary. Three things will be required: (1) Time, (2) careful planning of the course in physical education, and (3) broadly prepared teachers.

A minimum of one hour a day of enlivening and joy-producing exercise has already been suggested. This serves a double purpose; to conserve and develop the health of the students and to produce the raw material of personal experience without which it is hopeless to undertake to train teachers to teach.

Complementary to this at least one hour (period) per day should be given to instruction in the principles and practice of physical education. Not to enter deeply into details, under "principles" must be included the basic sciences anatomy, physiology, and hygiene—general, individual, and group; and the values of physical education—educational, social, civic, and economic.

Under "practice," must be included certainly practice in hygienic inspection of school plant; in cooperation with medical inspectors and nurses; in conduct of posture examinations and tests; in direction of drills, gymnastics, and games, community recreation projects; and in teaching habits and ideals of health.

VOLUNTARY ORGANIZATIONS.

The war has given stimulus to many voluntary organizations seeking to improve the health of school children. It may not be invidious to mention especially the Child Health Organization. This is an outgrowth of a committee of the New York Academy of Medicine on "War-time problems of childhood," formed primarily to study the problem of malnutrition among school children. "The revelation of the extent to which malnutrition had been shown to exist among school children of New York and its steady increase, due to ignorance of food values and the rising cost of food, was brought to the attention of Secretary Lane, of the Department of the Interior, who urged the formation of a national committee composed of lay and medical members to study the problem and advise means for its solution. In order to avoid the creation of an entirely new association, an organization to promote the health of school children was perfected as one of the branches of the National Child Labor Committee, which has always been interested in health education."

The following is a program that the Child Health Organization has set itself:

1. To teach health habits to children and to secure adequate health examinations for all children in the public schools of the country, including—

(a) Stimulation of children's interest by placing weighing and measuring scales in every school and acquainting children with ways and means of reaching the normal weight and height.

(b) Determination of proper standards for examinations with special reference to normal nutrition and growth.

(c) Methods of examination; how extensive for general application.

(d) Health records, which should cover the entire school life of the child and, with scholarship record, accompany him in his progress through school, and in making his application for a work permit.

(e) The arousing of a public demand for health examinations, the teaching of health habits, and the keeping of health records as a part of the regular routine of school life.

2. To consider the urgent problem of malnutrition among school children.

(a) A more careful study than has yet been made to determine its extent and degree, both in urban and rural communities.

(b) A study of the measures proposed to combat this condition, such as, (1) special nutrition classes; (2) making it possible for children to get one or more hot meals at school; (3) instruction of the community in the proper feeding of children of school age.

(c) To furnish information to educational and philanthropic organizations regarding the practical application of the results of these studies.

3. To safeguard the health of children in industry; this involves:

(a) The requirement of physical fitness for each particular job.

(b) The periodical examination of children who remain at work in factories, stores, and other establishments.

(c) The cancellation of permits to work at jobs not suited to the children from the health viewpoint.

4. Propaganda to awaken the public to the necessity of conserving the health of the school child as a basis of national security and stability.

5. To promote or cooperate with other bodies in securing legislation for the attainment of these objects.

The Bureau of Education, through its Division of School Hygiene and Physical Education, in collaboration with the Child Health Organization, is issuing health education material based upon the principle that normal increase in weight is the best rough and ready health index, and that by frequently recording the weights of children in a classroom the interest of children in health habits will be stimulated and sustained. The material consists of classroom weight records and a series of simple health education pamphlets.

Another notable contribution to the devices for teaching health is the Health Crusader plan of the National Tuberculosis Association.

MALNUTRITION AND THE NUTRITION CLASS.

To combat malnutrition by instruction and the formation of health habits is the object of the "nutrition class." An experimental nutrition class was conducted under the auspices of the Bureau of Educational Experiments in Public School No. 64, New York, in 1918. The class was conducted under the direction of Dr. W. R. P. Emerson, of Boston.

In Public School No. 64, Manhattan, where the experiments were conducted, 894 children were weighed and measured. The heights and weights were compared with standard measurements, so that the ratio of actual weight to average weight for height could be determined for each child. This average weight for children who measure 53 inches is 69 pounds. A child of this height who weighs only 62 pounds is 7 pounds, or 10 per cent, less than the average. The accompanying table shows the percentage of children in four different grades who were—(1) 7 per cent or more under the average weight for their height, (2) within 7 per cent of average weight, and (3) more than 7 per cent over the average weight for their height.

Percentage of overweight and underweight children.

	Grade VII.	Grade VI.	Grade V.	Grade I.	Total.
Children 7 per cent or more overweight...{Number..	38	40	21	27	126
From 7 per cent overweight to 7 per cent underweight.....{Number..	22.0	16.3	16.5	10.6	15.8
underweight.....{Percent..	110	166	79	185	540
Children 7 per cent or more underweight...{Number..	63.6	67.8	62.2	72.5	67.4
{Percent..	26	39	27	43	134
Total.....{Number..	14.4	15.9	21.8	16.9	16.8
Total.....{Percent..	178	245	127	255	800
	100.0	100.0	100.0	100.0	100.0

Different conditions were provided for these four classes, and an attempt has been made to determine to what extent various methods of procedure were successful. These conditions may be grouped under the following general captions:

I. *Instruction in health habits.*—A child should be taught proper habits of eating; sufficient mastication, the elimination of water as a flush, regular meals at a time of minimum fatigue, stimulants such as tea and coffee not to be used. These are some of the things toward which a child's attention should be directed.

II. *Removal of physical defects.*—Adenoids, enlarged tonsils, and defective teeth are contributing factors in undernourishment. They supply toxins which interfere with digestion, and the adenoids and tonsils prevent the taking in of sufficient oxygen.

III. *Rest and lunches.*—Undernourished children are unable to store up sufficient energy during the ordinary night's rest or through the usual number of meals. A rest period once or twice during the day provides an opportunity for recuperation, and food taken at more frequent intervals is more beneficial than the same amount consumed in the usual three meals.

IV. *Direct feeding.*—It has been assumed in many instances that the reason for undernourishment or malnutrition is inability to procure the necessary food.

If this is the condition, food should be supplied. One group of children was given only a midday meal, which was supposed to meet all the demands in the way of quantity and quality of food. Another group was given only instruction in health habits, with recommendations for rest and food and the removal of physical defects. Another group was given the instruction in health habits and provision was made for rest periods and mid-morning lunches, with recommendations for the removal of physical defects. Still another group was given all of the provisions so far mentioned. Comparison of results in these different groups shows that the poorest progress is made where nothing is provided except a sufficient quantity of food. The greatest progress was made by the children who were instructed in health habits, and who were simply *advised* to have frequent intervals of rest and more frequent meals.

The physical defect which seems to have the greatest effect on the nutritive processes, judged by the New York experiment, is that of the naso-pharyngeal obstruction. Out of the 105 children included in the classes, 69 suffered from this breathing obstruction. Two out of every three undernourished children had difficulty in getting sufficient oxygen. Comparisons of the progress made by those who did not need an operation, by those who needed and did not have an operation, and by those who needed and had an operation performed, show a serious handicap is imposed on children when the obstruction is allowed to remain.¹

SEX EDUCATION.

The war has lifted the veil of false modesty from the question of social hygiene and sex education. Effective methods of instruction in the cantonments have been developed. The Commission on Training Camp Activities through its camp community service has done much to educate the public. The State health departments and the United States Public Health Service have carried on effective educational propaganda. Religious and educational societies as well as medical societies are seriously grappling with the great problems of sex education. The bureau, in cooperation with the medical section of the Council of National Defense, has issued a pamphlet, "Keeping Fit," for high-school boys, giving simply and briefly the main factors in physical fitness, including sex. The appreciation of this pamphlet has been instantaneous and sincere. Requests have come for large numbers of copies not only from high schools but also from the Young Men's Christian Association, Boy Scouts, industrial firms, and many other sources.

The Public Health Service and the Bureau of Education in co-operation are planning a thorough investigation of practicable methods of sex education in the high school.

The Interdepartmental Social Hygiene Board, created by Congress in the summer of 1918, is authorized to pay the sum of \$300,000—

to such universities, colleges, or other suitable institutions or organizations as in the judgment of the Interdepartmental Social Hygiene Board are qualified

¹ Report furnished by Dr. David Mitchell, Bureau of Educational Experiments, 16 West Eighth Street, New York.

for scientific research for the purpose of discovering and developing in accordance with the rules and regulations prescribed by the Interdepartmental Social Hygiene Board more effective educational measures in the prevention of venereal diseases and for the purpose of sociological and psychological research related thereto.

MEDICAL SUPERVISION.

In all foreign countries the medical supervision of schools has suffered during the war. School medical officers, like all other members of the medical profession, have been called to military service. In our own country the same condition prevails, though to a less degree. For example, the consolidation of all health supervision and physical education activities under the school authority was successfully inaugurated in Holyoke, Mass., in 1915-16. In 1917 the efficient director of the work went elsewhere, and under war conditions no competent successor could be found.¹ In few States or communities, however, has there been any improvement in the work of school medical supervision. North Carolina appears to be one exception. The revised law which went into effect at the beginning of the present school year requires that teachers shall make a preliminary examination of all pupils, and provides for detailed examination of all suspected children by the county medical officer or by a physician designated by the State health department. The report of the first year's work under the new law shows that "more than 3,000 teachers properly filled out the cards after careful preliminary examination of more than 150,000 children"; and that of this "number of children, 34,387, or nearly one-fourth, have been carefully examined by the school physician or a specially trained school nurse." The report further shows much successful follow-up work and the establishment of dental clinics. "The most gratifying feature of the year's work has been the uniformly satisfactory work of the teachers in completing the preliminary examination of the children."

CLOSING SCHOOLS AS A MEANS OF CONTROLLING EPIDEMICS.

The following resolution was adopted by the American Health Association at its annual meeting in October, 1917:

Resolved, That it is the sense of the American Public Health Association that the Federal Bureau of Education should attempt to discover what is proper practice as to continuing or closing the schools as a means of controlling epidemics of measles, whooping cough, scarlet fever, diphtheria, smallpox, and poliomyelitis, and that they should publish their conclusions in the annual report of the Bureau and in bulletin form.

¹ See reports of superintendent of schools, Holyoke, Mass., for the years 1915, 1916, and 1917.

This service was accepted by the Bureau of Education upon the condition that a committee of the association be appointed to cooperate with the Bureau in carrying out the purposes of the resolution.¹

The following is a summary of the preliminary report of the committee:

Scope of inquiry.—The committee decided to limit the inquiry to the following three lines: (1) Summary of State laws bearing upon the question; (2) review of literature on the subject; (3) inquiry to be sent to 50 selected cities covering regulations, rules of practice, and results.

1. *State laws.*—An incomplete survey of State laws shows very few specific statutory references to the matter; rather general authority to control is vested in an administrative body.

2. *Review of literature.*—Review of more than 150 papers published during the past 20 years in journals, in official reports, and as chapters of books shows progressive abandonment of faith in, and the practice of school closure as a measure of controlling epidemics affecting school children. Yet even in recent literature there are still some expressions of opinion in favor of closure under special conditions. Analysis of these special conditions shows that they are of three types:

(1) Etiology of the disease unknown, e. g., in epidemics of infantile paralysis, epidemic meningitis, and possibly a few other diseases, it may occasionally still be necessary to resort to closure of schools.

(2) Severity of an epidemic that defies all efforts at control.

(3) Inadequate medical supervision of schools.

With these qualifications, the consensus of judgment in the literature reviewed may be summarized as follows:

The closure of schools is an extremely clumsy, unscientific, and unsatisfactory method of controlling epidemics among school children. It results not only in loss of school time and money, but it fails to control, inasmuch as infected children are at large, playing in the street, without restriction, and therefore spreading the infection.

The modern method, consisting of careful daily inspection of infected schools, isolation of sick children, and quarantine of contacts is both more effective and more economical.

Closing of schools should be considered as a last resort, to be used only when thorough and systematic application of other measures fails to effect control.

¹ The committee consisted of Dr. W. C. Woodward, health officer, Boston; Dr. F. G. Curtis, health officer, Newton, Mass.; Dr. Bernard Kahn, acting director of medical inspection of public schools, Philadelphia; Dr. T. Clark, U. S. Public Health Service; Dr. W. S. Small, Bureau of Education, chairman.

It is also recognized that in sparsely populated rural areas, where aggregation takes place only in the schools, closure may be necessary. It is further recognized, however, that this condition would yield to adequate inspection.

3. *Inquiry in selected cities.*—An inquiry consisting of 14 questions was sent to 50 cities in 31 States. Replies were received from 32 cities in 19 States. The questions covered the following items: Laws or regulations providing for closure of schools in event of epidemic; extent to which closure is practiced; regulations governing exclusion of cases and contacts; frequency of inspection for discovering cases and supervision of contracts; home visitation for discovery of cases; extent and methods of disinfection; extent to which culture tubes are employed for detection of diphtheria carriers in schools and the Shick test for determination of immunes; laws and regulations governing vaccination; results of measures of control and methods of securing cooperation between school medical inspection service and local health authorities.

Minute examination of the returns, many of which were very full and explicit, confirms conclusions reported above from review of literature.

Successful control of contagious diseases in and through the schools is quite definitely correlated with the following conditions: Absence of closure; careful provisions for exclusion of cases and contacts, emphasis being placed upon clinical data rather than upon fixed period of exclusions; careful daily or frequent periodical inspection of schools; systematic home visitation; reliance upon natural and physical cleansing rather than upon chemical disinfection.

Without exception the cities that report reliance upon these measures report that they have had no occasion to close schools since such measures were adopted. On the other hand, the cities reporting inadequate measures of inspection also report reliance upon closure and disinfection by chemicals. The two following cases are typical. The cities are nearly the same size.

CITY A.

1. Regulations require closure for all the diseases specified except whooping cough.
2. Rigid period of exclusion of cases.
3. Rigid period of exclusion of contacts.
4. As much daily inspection as can be given by four physicians and one nurse for 40,000 children.
5. Home visitation; "check every rumor as far as possible."
6. Disinfection is practiced by formalin fumigation and washing walls with strong solution.

7. No definite reply in regard to results except that closure was resorted to twice last year, and that by utilization of teachers and principals there has been a reduction of the preceding year's record of active cases.

CITY B.

1. No law, but power has never been questioned.
2. All contagious cases are excluded until personally examined by epidemiologist.
3. Contacts are excluded at the discretion of the epidemiologist.
4. Nurses inspect daily; doctors on call.
5. Nurses investigate all suspicious cases.
6. Do not practice disinfection.
7. Methods of control seem to be satisfactory. In the four years since adopted, no occasion to close schools and very few recurrent cases.

CONCLUSIONS.

1. Closure of schools as a means of controlling epidemics of the six diseases specified is unnecessary, unscientific, and unjustifiable.
2. Disinfection by fumigation is unnecessary and ineffective. The use of chemical solutions is generally unnecessary. Disinfection by air and sun and cleansing with hot water, soap, and scrubbing is to be commended.
3. The proper method of control involves sufficient inspectorial force of physicians and nurses to maintain close supervision of cases and contacts; enforcement of isolation and quarantine under elastic administrative regulations; the employment of clinical and laboratory tests and reliance upon such data; close correlation of the school medical inspection, on the one hand, with the health department, and, on the other hand, with the school forces; and continuous education of the public.
4. The wide diversities in rule and practice revealed by this study should be eliminated or reduced. It is unreasonable, unscientific, and absurd that there should be such variations in the minimum period of exclusion as from 14 to 42 days (scarlet fever). This is nearly typical of many variations that could and should be eliminated. They do not depend upon adequate or inadequate support of medical inspection; they depend solely upon ignorance, indifference, or unreasonable difference of opinion. Much of this diversity would be eliminated by acceptance by all school health officers of the standards set up in the report of the "Committee on Standard Regulations for Control of Communicable Diseases," submitted to, and adopted at, the 1917 meeting of the Public Health Association. (U. S. Public Health Service: Public Health Reports, October 12, 1917.)

EYE HYGIENE.

The report of the Provost Marshal General on the First Draft under the Selective Service Act stated that "the specific source of defect showing the largest percentage of rejects was eyes," 21.68 per cent. It is to be remembered that this was prior to the promulgation of the regulations providing for "limited service." The second report of the Provost Marshal General¹ shows that of "Grade D disqualified for any military service," 10.65 per cent were rejected on account of eye defects. The percentage of men relegated to "limited service" on account of eye defects is not given, but obviously it was large. From the point of view of military efficiency, as well as from the point of view of industrial efficiency and of general human welfare the conservation of vision is still "one of the most serious problems of educational hygiene."² The most important contribution to this subject since 1916 is a survey of the causes and extent of defective vision as related to school environment and of effective methods for prevention and correction made in New York in 1916-17, by Mr. J. H. Berkowitz for the Bureau of Child Welfare of the Association for Improving the Condition of the Poor. This study covered the nature and extent of defective vision in school children; the preventable causes of defective vision within the schools and the factors in school life contributing to deterioration of eyesight; conservative and preventive measures; clinical facilities for correction of eye defects and agencies for supplying glasses to needy children; and necessary improvements in facilities and methods in these various fields. Intensive investigations were made in a large number of classrooms of physical conditions and school practices relative to eyesight. The facilities and methods of the municipal and privately owned clinics and dispensaries were carefully investigated. A limited inquiry was made into the follow-up methods.

In final form the report³ of this survey included not only the results of the investigations in the New York schools but also data from about 40 other cities in the United States and from foreign cities, summaries of important earlier investigations, appendices (text of important reports difficult to obtain), and bibliography.

ORAL HYGIENE.

As was to be expected from our knowledge of the condition of teeth of school children, a large amount of dental disease was found among the drafted men. The percentage of rejections for this cause was not large: 8.50 per cent in the first report of the Provost Marshal

¹ Operation of the Selective Service System to December 20, 1918.

² Report of the Commissioner of Education, 1916, ch. 19.

³ This report is soon to be published as a bulletin of the Bureau of Education.

General, 5.69 per cent in second report; but it is stated by Dr. Fones,¹ as result of his work with men stationed at Bridgeport, that "the appalling need for prophylactic work among these soldiers and the interest and willingness of the men to have this treatment can hardly be realized." Thus the need of systematic work for the conservation of the teeth of school children is again emphasized.

This work must be both prophylactic and reparative. In most cases where dental clinics have been established in the schools, the emphasis is upon reparative work for indigent children. As an educational project, however, obviously emphasis should be placed upon prevention and conservation.

PREVENTION EMPHASIZED.

Bridgeport, Conn.—Arguing that it is impracticable to repair the decayed teeth of all the school children and that it is repugnant to American ideas to dispense charity in the public schools, Dr. Alfred C. Fones, of Bridgeport, has sought to "evolve a plan for the prevention of dental decay and the establishment of clean mouths as an active part of our great free educational system."

Following is the substance of the plan as reported by Dr. Fones in the third year of operation:²

We have tried to work out this plan in Bridgeport, and after three years we find that our educational and preventive dental clinic is the most important part of our school and health systems. Under the plan of this clinic every child undergoes an examination of his mouth and receives a prophylactic treatment of his teeth, accepting it as much a part of the school curriculum as his geography lesson. Every child is taught a method of brushing his teeth and is educated in the care of his mouth just as he is taught physiology or calisthenics. In this way the municipality accepts one-half the responsibility of aiding and educating the children in the prevention of dental decay, while the home care of the mouth and proper feeding is assumed by the child and his parent.

The work of the clinic is divided into four distinct parts. First, the actual cleaning, polishing, and examination of the children's teeth in schools. Second, the tooth brush drills and classroom talks. Third, stereopticon lectures for the education of children in the higher grades. Fourth, educational work in the home carried on by special literature to gain the cooperation of the parents. It may be well at this point to make clear to those outside the dental profession what a prophylactic treatment really is. It consists mainly in the thorough cleaning, by means of orange wood sticks in hand polishers, of every surface of every tooth. This means the removal of all stains and accretions on the teeth and especially of the sticky, mucilaginous films known as bacterial plaques, which are the initial stage of all dental decay. The importance of removing these plaques can thus be readily understood. This work of prevention of dental decay is essentially a woman's work, and to the dental hygienist it opens up paths of usefulness and activity in helping humanity in masses.

¹ "An Educational and Preventive Dental Clinic." Nat. Dental Assoc., 21st An. Sess., Oct. 23-26, 1917.

² Mouth Hygiene for U. S. Soldiers, Nat. Dental Assoc., 21st An. Sess., N. Y. City, Oct. 23-26, 1917.

In 1913-14 we trained the first class of dental hygienists in Bridgeport, and two of these women were selected as dental supervisors when our clinic started in the fall of 1914. We had received \$5,000 to carry on a demonstrating preventive clinic for the children of the first two grades of our schools, and our corps consisted of 8 dental hygienists and 2 supervisors. In but one year our city officials were so impressed with the results of our work that the appropriation was doubled, the corps enlarged, and a woman dentist added, and now, the fourth year of our clinic, we have a corps of 20 dental hygienists, 2 supervisors, and 2 women dentists, and an appropriation of \$21,529. The money is appropriated through the board of health and the clinic is conducted by a sub-committee of this board.

Time will not permit giving a detailed report of our clinic from its start in 1914, but it may be said that the system now employed is very similar to that used originally.

The dental supervisors oversee and direct the work of the dental hygienists, give classroom talks, toothbrush drills, stereopticon lectures, attend to the distribution of literature to children and supplies to the hygienists, and arranging for the moving and location of hygienists in each school.

The work of the dental hygienists consists in making the examination and records of the teeth, giving the prophylactic treatments and instructions in the home care of the mouth.

When the equipment is placed the hygienist begins work for the children of the first grade and takes each grade in succession through the fifth. The charts are made of each child's mouth, one for the parent and one which is a permanent record for the files, showing the conditions found in the mouth for a period of five years.

Aside from the actual cleaning of the children's teeth, the work of the supervisors with tooth brush drills is considered very important, and every effort is made to present this phase of mouth hygiene to the children in a way that will be educational and interesting. It has been quite a problem to secure a good brush that can be sold for 5 cents, and up to the present time nothing better has offered than factory seconds of a good make of brush.

On the day preceding a toothbrush drill a notice is sent to the parent requesting that the child be allowed to bring his tooth brush to school, and that it be securely wrapped in clean paper. Announcement is made in the classrooms that any child may purchase a new toothbrush for 5 cents. The drill proper is given with the children seated, while the assistants pass up and down the aisles helping the children to hold the brushes correctly and to make the right movements. There are four positions for holding the brush and two movements in each drill. The children brush to count in a stereotyped form, it being intended to teach merely the correct form of brushing and not meant for the actual cleaning of the teeth which would require running water and dentifrice. A second talk is given up to the care of the brush and the necessity of hanging it in a clean place. The children repeat the drill standing, and the brushes are wrapped in clean waxed paper to be taken home.

It is hardly possible to estimate the educational value of the toothbrush drill in the classroom. It is accepted by the children as part of the curriculum, and therefore something to be learned and remembered. The teachers have aided in many ways to assist the children in forming the habit of daily brushing.

When the children of the first and second grades receive their first treatment, it is frequently found that while many of the deciduous teeth are decayed, the few permanent teeth erupted at that age are sound, with the exception of the six-year molars. The very first small cavities are just appearing in these

teeth, and we believe that the small children entering the prophylactic system should all start on the same basis, that is with sound permanent teeth. We have two women dentists who work with the hygienists in our schools and confine their efforts to the filling of the first permanent molar teeth. We term this preventive dentistry also, as the effort is made to thus prevent the development of large cavities in these, the most important teeth of the denture.

As yet we are not fortunate enough in Bridgeport to have a free dental clinic for the poor, but the work is now progressing rapidly on a welfare building where such a clinic will be conducted. In the meantime the board of health employs a centrally located dentist to relieve toothache for any child in our public schools presenting the relief cards issued by the dental committee through the school principals, but no attempt is made to do any reparative work.

REPAIR WORK EMPHASIZED.

The following facts in regard to plans and cost of operation of dental clinics in four cities were gathered by the District of Columbia Dental Society in the autumn of 1917:

Philadelphia.—There are eight free dental clinics for school children, four of which are located in public schools and four in health division centers of the Bureau of Health. The entire staff in the dental dispensary consists of: (a) Chief of dental dispensaries. (b) Thirteen assistants. (c) One attendant.

The cost is \$15,000, divided as follows:

\$9,100 for salaries of assistants, \$700 per year each.
2,500 for salary of chief of dental dispensaries.
900 for salary of attendant.
2,600 for maintenance and supplies of clinic.

No specific number of children is allotted to a clinic. Each one takes care of as many as possible. During the month of May, 1917, 2,370 visits were made by children to the clinics, an average of nearly 300 per clinic per month. The children are brought to the clinics by school nurses, parents, older children, probation officers, and others. The assistant dentists receive \$300 a year each for three hours of continuous working service per day.

Chicago.—Chicago supports nine full-time and four part-time clinics. The budget for 1917 provides \$11,000 for salaries and \$1,500 for supplies.

Each clinic cares for an average of 10 or 12 children daily. In 1916, the report on dental service showed: New cases, 7,049; treatments given, 30,749; fillings, 28,877; crown and bridge work, 63; extractions, 20,554; visits of dental surgeons to dental clinics, 2,191.

Children are selected for treatment in the dental clinics upon the basis of examination given by school health officers. The parent is advised of defects found. School nurses follow up these cases, and if parent can not afford to pay for a private dentist the nurse arranges to take the child to a dental clinic. The child is entitled to free dental work if the income of the family is \$3 or less per person

per week. The nurse collects eligible children at her school and takes them to the dental clinic and brings them back again. Nurses are scheduled to dental clinics according to an arranged program.

The school dentists receive \$100 per month 10 months of the year. The hours are from 9 a. m. to 3.30 p. m., with one hour for lunch.

Cincinnati.—The health department and the oral hygiene committee of the Cincinnati Dental Society, in connection with the public-school department, operate three free dental clinics for the benefit of public and parochial school children whose parents are unable to pay for dental services. The movement was launched about eight years ago by the Cincinnati Dental Society and was financed entirely by this organization until 1912. The oral hygiene committee still supplements the insufficient appropriation made by the city. The city budget provides \$4,500; the balance is made up by the oral hygiene committee. There is well planned dental inspection once a week in some schools, conducted by members of the Cincinnati Dental Society. Children who are in need of dental services are referred to their dentists, but if unable to pay can take advantage of free clinics. Reasonable effort is made by principals and teachers to minimize the abuse of charity, and they must certify that the cases are worthy of charity.

The dental operators are paid at the rate of \$50 per month for three and one-half consecutive hours per day. The pay of the dental assistants is from \$500 to \$720 per annum.

Detroit.—All free dental work is done under the direction of the board of health. At the present time there are 12 clinics in the city. These clinics are located in school buildings, hospitals, settlement houses, and one in the board of health building. There is a fund of \$20,000 to maintain these clinics, and from this fund the salaries of the inspectors who examine the mouths of children of school age twice yearly are paid. During the past fiscal year some 20,000 children were treated in these clinics. No social service division is maintained in this department, but dependence is made upon the school teachers and nurses to "tip us off" when we are being imposed upon.

Salaries of operators as follows: \$1,000, \$1,200, and \$1,800 per year, respectively; half-time inspectors, \$50 per month. Clinic assistants are employed at the rate of \$40 per month.

STATE LEGISLATION FOR PHYSICAL EDUCATION.¹

Within the past three years, eight States have enacted laws providing for State-wide physical education, namely, Illinois in 1915; New York in 1916; New Jersey, Nevada, Rhode Island, and California in

¹ See Bureau of Education Bulletin, 1918, No. 40, "Recent State Legislation for Physical Education."

1917; Delaware and Maryland in 1918. In six other States, Massachusetts, Connecticut, Pennsylvania, Nebraska, Ohio, and Colorado, legislative attention has been given to this matter, but no legislation has yet been enacted. In New Jersey and Massachusetts special commissions made exhaustive investigations and reports as the basis for legislative action. Though this legislation in all but two States was enacted prior to the current year, it did not become effective until this year, except in New York and Illinois. In New York, however, the law was amended in 1918 so that the law in final form will not be in full effect until 1918-19.

The most significant feature of this legislation is the broad and comprehensive interpretation of physical education given either in the statutes themselves or in the administrative programs adopted by the State departments of education. In the New York program physical education is interpreted as covering: "(1) Individual health examination and personal health instruction (medical inspection); (2) instruction concerning the care of the body and concerning the important facts of hygiene (recitations in hygiene); and (3) physical exercise as a health habit, including gymnastics, elementary marching, organized supervised play, recreation, and athletics." In the California statute the aims and purposes of the physical education are specified: "(1) To develop organic vigor, provide neuromuscular training, promote bodily and mental poise, correct postural defects, secure the more advanced forms of coordination, strength, and endurance, and to promote such desirable moral and social qualities as appreciation of the value of cooperation, self-subordination, and obedience to authority, and higher ideals, courage, and wholesome interest in truly recreational activities; (2) to promote a hygienic school and home life, secure scientific sanitation of school buildings, playgrounds, and athletic fields, and the equipment thereof."

The Rhode Island syllabus states that "Physical education may be defined as including healthful, sanitary environment; medical inspection; instruction in physiology and hygiene; and exercise in the form of such motor activities as marching, gymnastics, dancing, supervised play, and athletics."

With the exception of the Nevada law, all of these State laws provide for compulsory physical education in all their public schools. The most notable weakness is the failure to provide adequate financial support for administration and supervision, and the failure to provide administrative means for making the laws locally effective.

The results of the first year under the new law in New Jersey are summarized by the State commissioner as follows:

Physical training, systematically taught this year for the first time in many schools, will be more effective next year. It has already enlivened the schools,

created new enthusiasms and contributed to the welfare of children and teachers. * * * The public needs to realize that money expended for health education, both rural and urban, is money better spent than for almost anything else. * * * We need not only better medical inspection, but also more school nurses, in country as well as in city. It can not be said with emphasis too great that physical training is preparedness. Its purpose is no other than to increase our man and woman power.

THE NATION'S NEED OF PHYSICAL EDUCATION.

The war has suddenly revealed to us and to all other nations the basic value of human life. It is no longer merely the voice of the philanthropist crying in the wilderness the doctrine of the individual's right to abundance of life; it is the Nation in its hour of crisis demanding the fullest physical capacity of all its men, women, and children. "The truth is pounded home with every succeeding engagement on land and sea that the conservation of human life is now a part of practical affairs, something to receive its place in the everyday consideration of those responsible for national progress." In war's terrible markets human life is the basic legal tender. Money, munitions, ships, and all the other essentials for the prosecution of war are but promissory notes.

This is recognized in the English education bill which at this date (June 30) is in the final stages of passage. It includes provisions for a comprehensive and thorough program of health conservation and physical education. This program covers adequate medical supervision both of children in school and children in industry, and physical education in all elementary, secondary, and continuation schools, and the provision of proper equipment for the same, and provision for physically and mentally defective children.

In France, a strong committee has been formed, of which several members of the Chamber of Deputies are members, for the study and promotion of physical education, social hygiene and race conservation. The committee proposes to cooperate closely with the public authorities, the universities, the faculties, the commercial centers, the industrial centers, the financial powers, and the press.

Its program includes a general method of rational physical instruction; a system of schools of physical education for instructors of the Army and of both sexes; simplification of school programs and introduction of a physical test in all examinations; emphasis upon outdoor exercises; outdoor schools and open-air colonies for physically abnormal children; complete reorganization of school medical inspection; the employment of trained teachers of gymnastics; legislation restricting juvenile labor; and a larger place in the training for military service to physical education and athletics.

In this country, likewise, we are recognizing that physical efficiency of the citizens is not only a matter of individual or local or

State concern, but also a matter of supreme national concern. The fact that the first draft figures show a wide variation in the percentage of physical effectives that the States can contribute to the national defense—an extreme variation of 33 per cent—lifts the question at once into the field of national statesmanship. The experience of the training camps is a conclusive demonstration of the need of a national program that shall produce not only physically sound but also physically educated citizens.

President Emeritus Eliot, of Harvard, in a weighty address on "Certain Defects in American Education" (Teachers' Leaflet No. 5, Bureau of Education, June, 1918) states the case clearly and forcefully:

To secure for every child in the country a complete course of physical training is a great national object in war times and peace times alike, and part of the expense of the course should be borne by the National Government. The Swiss Federal Council prescribes the program of physical training for every school in Switzerland, and appoints and pays the national inspectors who see that this program is carried out. The federation also makes a small contribution to the cost of this training throughout the Republic. The war with Germany has already taught us that the United States should henceforth and at once do the same thing in aid of the much larger expenditures of the States and the municipalities on the same all-important subject, and should make sure that the training is actually given. When a proper course of physical training has been in operation in the United States for 12 to 15 years, the productiveness of the national industries will show a great increase, and the young men who are to fill the permanent Army and Navy of the United States will come to the annual mobilization with bodies already fit for the work of a soldier or sailor.

The commission on the national emergency in education of the National Education Association emphasizes strongly the importance of physical education and health conservation in its program for Federal legislation.

In its bill providing for the creation of a department of education and the encouragement of the States in the promotion and support of education, it specifies that two-tenths of the \$100,000,000 asked shall be devoted to physical education and instruction in the principles of hygiene and sanitation, and for providing school nurses, school dental clinics, and otherwise promoting physical and mental welfare.

The American Federation of Labor in its educational program includes the following planks:

The provision of ample playground facilities as a part of the public-school system.

Continuous medical and dental inspection throughout the schools.

The organization and equipment of special classes for children who are subnormal, either mentally or physically, and also special classes for children who are found capable of making more rapid progress than is possible in a standard school.

The establishment of complete systems of modern physical education.

Numerous patriotic, civic, health, and philanthropic organizations have taken a similar position. A national committee on physical education has been formed with purposes similar to those of the French "committee" already named. More specifically it is devoted to the promotion of State and Federal legislation for physical education. The committee, in its proposed program for Federal legislation, adopts the interpretation of physical education as illustrated in the best recent State laws. "It assumes physical activity as the basic thing, but conditioned upon, and integrally related with, wholesome physical environment, individual physical examination and record, medical supervision of schools and school children, development of health habits and instruction in health knowledge, hygienic school management and procedure, and cooperation with all agencies that make for physical upbuilding and the moral growth inevitably incident to sane, wholesome, active physical life."

It asks that physical education be for boys and girls alike; for all children between 6 and 18 years, inclusive, in all schools and in industry; for provision for investigation and demonstrations in the interest of progressively scientific standards; for Federal aid to the States and Federal cooperation in the administration of all State systems, but with guarantees of State autonomy and initiative.

The National Physical Education Service¹ has been established by the Playground and Recreation Association of America at the request of the national committee on physical education to organize and manage the movement for State and Federal legislation for physical education.

PHYSICAL EDUCATION AND MILITARY TRAINING.

Physical education as interpreted by the individuals and organization cited above is not a substitute for military training. With respect to boys, it is premilitary training. It is a program for producing physically fit men and women by physically educating boys and girls during the period of immaturity. The program stops at 18 years of age. Efficient military training can not begin earlier than 18 years. If universal military training should be adopted, this program would insure maximum preparation of a maximum number of young men for military training. It is preparatory to military training in the following ways: By the selection of boys fit for military training through recurrent physical examination during the growth period and the early detection and correction of remediable defects; by systematic training through graded systems of exercises adapted to children of different ages, through corrective

* Headquarters, 818 Connecticut Avenue, Washington, D. C.

exercises for postural and muscular defects, and through intensive physical training and athletics for the older boys; by systematic training into health habits and instruction in health knowledge; and by increasing the physical efficiency of those whose defects would confine them to limited service, through early detection of defects, through specialized training of such individuals, and through keeping them out of occupations for which they are unfit.

CHAPTER XVII.

RECENT PROGRESS IN NEGRO EDUCATION.

By THOMAS JESSE JONES.

CONTENTS.—Introductory—State supervisors—Jeanes industrial teachers—County training schools—Rosenwald schools—Phelps-Stokes fund—Public school facilities—Recent publications—Educational meetings—Church boards—Private and denominational schools.

The past year has witnessed considerable progress in the field of negro education, despite adverse conditions brought about by the war. Probably the most significant event of the year was the appointment in Texas of a State supervisor of rural Negro schools, whose salary and expenses are paid entirely by the State. Short terms, poor schoolhouses, and low salaries continue to hamper the works of the public schools, but the problem of Negro education has been called to the attention of the white South by the recent exodus of Negroes from that section, and some improvement has already been made. While there has been a considerable increase in the actual amounts appropriated by the Southern States for salaries of colored teachers, the Negroes still receive no greater proportion of the sums expended for teachers' salaries. The official reports of State superintendents of public instruction show that these officials are trying to increase the school facilities for Negroes and are calling the attention of the public to the matter. During the year bulletins and leaflets dealing with various phases of Negro education have been published by State departments of education.

The number of Jeanes industrial teachers has increased, and their work has been so effective that one State superintendent recommends in his official report that similar supervisors be employed for white schools. The cooperation of the General Education Board has enabled these teachers to organize home makers' clubs during the summer months. In doing this home club work the teachers give demonstrations of cooking, canning, and preserving. The General Education Board has also cooperated with the States in maintaining supervisors of rural schools and in furnishing equipment for county training schools. The county training schools, supported by the counties with the aid of the Slater fund, have passed the experimental stage, and only the high cost of labor and materials prevented the building of additional schools during the year. The Rosenwald fund has made possible the erection of a number of rural school-

houses. The Phelps-Stokes fund, which financed the investigation of negro education, continues to cooperate with the Bureau of Education. Its work has been the maintenance of an information bureau, giving expert advice to schools and keeping before the public the educational needs of the Negro.

The private and higher schools have had a very difficult year, because of the high cost of supplies, the difficulty of raising funds, and the loss of teachers and students who joined the military forces or went into some form of war work. The faculties of the strongest schools were heavily drawn on by the Government and other agencies seeking men for responsible positions. All schools with sufficient equipment cheerfully assumed the additional burden of training soldiers and giving special courses to students, in order to meet the needs of the Army. Cooperation between denominational and independent schools, public authorities and educational funds, has been furthered by a committee on Negro education appointed by the Commissioner of Education.

STATE SUPERVISORS.

At present 10 States, with the assistance of the General Education Board, maintain supervisors of Negro rural schools. Oklahoma and Florida are the only States with a considerable proportion of negroes that have no special supervisor. In Texas the supervisor is paid entirely by the State.

The work of the State supervisors may be briefly summarized under four heads: (1) The improvement of school facilities, by urging county superintendents and boards of education to extend school terms, pay better salaries, and provide better houses. (2) The development of county training schools, maintained by the counties with the help of the Slater fund. The first object of these schools is to train teachers for the rural schools. In offering some high-school work and industrial training, these schools are rendering a large service. (3) The improvement of teachers in service by conducting county institutes, and cooperating with State normal schools and summer schools conducted by private institutions. (4) The promotion of home-makers' clubs. In North Carolina and Mississippi the State supervisor has a colored man to assist him in his work. In North Carolina the salary of this assistant is paid by the State Colored Teachers' Association; in Mississippi it is paid by the State. The work of these assistants has been of great value.

JEANES INDUSTRIAL TEACHERS.

The following statement of the work of the Jeanes fund teachers, who are county industrial supervisors, is furnished by the director of the Jeanes fund:

The **Jeanes** fund, for the improvement of Negro rural schools, cooperated during the session ending June 30, 1918, with public school superintendents in 200 counties in 14 States.

The supervising industrial teachers, paid partly by the counties and partly by the **Jeanes** fund, visited regularly in these counties 5,717 country schools, making in all 20,903 visits and raising for purposes of school improvement \$204,646. The total amount of salary paid to the supervising teachers was \$65,182, of which the county school authorities paid \$25,334 and the fund \$39,848.

The business of these traveling teachers, working under the direction of the county superintendent, is to introduce into the small country schools simple home industries; to give talks and lessons on sanitation, personal cleanliness, etc.; to encourage the improvement of schoolhouses and school grounds; and to conduct gardening clubs and other kinds of clubs for the betterment of the school and the neighborhood.

The table here given shows the extent of the work done by these teachers, and how it is financed:

Negro rural school fund, Jeanes Foundation, 1918-19.

States.	Number of teachers.	Number of counties.	Paid by Jeanes fund.	Paid by public fund.
Alabama.....	124	23	\$5,223.00	\$3,806.83
Arkansas.....	120	19	2,928.75	7,750.00
Florida.....	4	4	1,055.00	812.00
Georgia.....	24	24	3,810.00	3,000.00
Kentucky.....	19	9	1,985.00	1,065.00
Louisiana.....	15	14	4,185.00	2,848.00
Mississippi.....	26	25	4,110.00	6,535.00
North Carolina.....	39	39	5,815.00	7,665.00
South Carolina.....	14	14	3,485.00	1,708.00
Tennessee.....	20	21	3,587.50	5,110.00
Texas.....	6	6	1,540.00	1,300.00
Virginia.....	16	18	2,973.00	3,132.00
Total.....	1,217	216	40,057.25	44,591.83

¹ Including State supervising teachers.

Several of the State supervisors have found it wise to concentrate their efforts on counties where **Jeanes** teachers are at work. In Alabama, Kentucky, Louisiana, North Carolina, and Virginia there is a State supervising teacher. The work of the **Jeanes** teachers in Alabama is described in the following paragraph from the 1917 annual report of the department of education:

SUPERVISION OF SCHOOLS.

As an aid to the county superintendents and county boards of education charged with the supervision of all schools in their respective counties, it has been possible to place in 24 counties, through assistance from the **Jeanes** Foundation, 27 supervising industrial teachers, all of whom, with the exception of one man, are women with special training in industrial work. They supervise the elementary industrial training in the rural schools of the county, and assist in the general supervision of the Negro schools. The fact that in 1913 there were only 12 of these supervisors employed and that last year the number had increased to 27 shows the success with which these workers are meeting. There is a growing disposition on the part of the counties to bear

an increased proportion of the salaries of these workers, who have proved themselves to be of inestimable value to the school officials and people of their respective counties.

That State school officials have seen the value of the work done by the Jeanes supervisors is shown by the following quotation from the annual report of the superintendent of public instruction of Virginia, for the year 1916-17:

COLORED SUPERVISORS AND THE LESSON THEY TEACH.

Some of life's best lessons are taught by the simplest and most obvious illustrations, as in the case of the sluggard who was advised to observe the unrecognized ant; and so we may say that if any man will observe the work of the colored demonstrators or supervising teachers—men and women whose services have been almost thrust upon the State by private generosity—he can not hesitate for a moment in deciding what is the next step in the development of our work among the white children. These colored leaders have increased teachers' salaries; they have also lengthened the term and have brought into the schools so many new children that the taxpayer has found the per capita cost materially reduced.

COUNTY TRAINING SCHOOLS.

At present there are 77 of these institutions, and several others will be erected as soon as the abnormal price conditions of war times have passed. They are divided among the States as follows: Alabama, 11; Arkansas, 5; Florida, 1; Georgia, 5; Kentucky, 2; Maryland, 1; Louisiana, 4; Mississippi, 3; North Carolina, 14; South Carolina, 6; Tennessee, 6; Texas, 5; Virginia, 8. These schools are built and maintained by the combined efforts of the public-school authorities, the Slater fund, the colored people of the county, and the local white friends of Negro education. This quotation from the report of the superintendent of public instruction for North Carolina, 1915-16, shows the plan under which the county training schools are built and maintained:

The establishment of three county training schools was mentioned in my first biennial report. These began work in the fall of 1914 in the counties of Johnston, Pamlico, and Wake. These schools are established by the county boards of education on the recommendation of the county superintendents. Their main support is apportioned from public-school funds. Some aid for current expenses is given by the Slater fund, and the General Education Board has made donations for equipment.

The best statement I have seen of the need of such schools, their purpose, and the conditions for receiving outside financial aid is made by Dr. James H. Dillard, director of the Slater fund. It is as follows:

One of the greatest immediate needs is for even fairly competent teachers in the small public schools. The Slater fund has contributed much to the preparation of teachers, but in the past its contributions in this direction have been mainly to the larger and higher institutions. There is now great need for the preparation of teachers in a lower grade of advancement. The immediate conditions under which such work must be done may be far from ideal,

but the effort faces facts as they are. It is a fact that a very large majority of the teachers in the small rural schools for negroes have got what they have of education and training in their own or a neighboring county. Many superintendents are showing interest in the improvement of some central school in the county, which may serve the purpose of supplying a somewhat better grade of teachers.

Aid from the Slater fund is given on the following simple conditions:

First. That the school property shall belong to the State or county, thus fixing the school as a part of the public-school system.

Second. That there shall be an appropriation of at least \$750 from the public funds for maintenance.

Third. That the teaching shall be carried strictly and honestly through at least the eighth grade, including industrial work, and in the last year some training, however elementary, for the work of teaching.

Under these conditions the Slater fund has agreed to appropriate \$500 for maintenance, and in the first year, where new buildings or repairs may be necessary, to aid in supplying these in cooperation with amounts raised from other sources.

The regular State public-school course of study is followed in all the schools through the seven elementary grades. In the eighth and ninth grades, where there is a ninth grade, the State high-school course is followed with negro history substituted in most cases for ancient history, simple teacher training, and industrial work for the classics. An effort is made to teach the simple home industries throughout the school. These consist of cooking, sewing, house-keeping, laundry work, gardening, manual training, and the like. Last spring several of the schools made fly screens and endeavored to get the people in the communities generally to use them. Very fine gardening work was done at the Method School.

Each of these schools receives annually \$500 from the Slater fund for current expenses. The General Education Board gave \$1,164 for industrial and other equipment for the three schools in 1914-15, and \$3,160 for the same purposes for the five schools in operation in 1915-16.

One of the schools, Parmele, in Martin County, received \$2,000 from the Phelps-Stokes fund in 1915 to aid in building. Three others received a total of \$1,300 for the same purpose from the Slater fund in 1915-16.

All these appropriations were made to supplement local funds to be used for the purposes named.

At the Berry O'Kelly School, Wake County, a splendid new modern brick building is just being completed. When completed, the plant will cost more than \$10,000. The Martin County school moved into a nice new brick building in 1915. Repairs and improvements have been made in the other three counties. Small, but satisfactory, industrial buildings were erected in Johnston, Pamlico, and Sampson Counties.

ROSENWALD SCHOOLS.

The following letter, sent to county superintendents in Georgia by the supervisor in that State, explains how the Rosenwald fund is being used to promote the building of good schoolhouses for colored children:

To County Superintendents of Schools:

GENTLEMEN: The Rosenwald fund is available for assistance in constructing model colored school buildings, in cooperation with local communities and county authorities. This fund is offered for the purpose of encouraging the construction of modern model schoolhouses. Such houses will doubtless im-

prove the kinds of residences of the people and tend to elevate the moral and civic ideals of the people.

It is insisted that good schoolhouses should be built in suitable places to be approved by the county boards of education, and should be built after an approved plan. It is further urged that the titles to public school property should be held by the county boards of education.

Small district schools, in the absence of natural barriers, should be consolidated, thus bringing two or more one-teacher schools into a larger one. Combining such communities, when it can be done, will create more enthusiasm and render available larger assistance in constructing schoolhouses.

It is useless to say that we, as friends and neighbors of the colored people, are and should be much interested in their schools and school buildings. The encouragement of the white people and school authorities is quite helpful in developing school pride and improvements.

Upon compliance with the following conditions, participation in the Rosenwald fund is possible:

1. The schoolhouse is to be for country children, and small towns may be interested.

2. From 2 to 5 acres of land are to be secured by the colored people, at a place approved by the school board, and the property is to be deeded to the board of education for colored school purposes.

3. The county superintendent, the patrons, and the undersigned are to agree upon a plan of building.

4. The superintendent of schools shall handle the funds and direct the construction of the building.

5. The community and county authorities must guarantee the completion and equipment of the building. The house shall be painted inside and outside with at least two coats of paint; each classroom must contain at least 20 lineal feet of good blackboard and have suitable desks for pupils and teacher; the building must contain at least two cloakrooms, a workroom, and a small kitchen. The smoke flues must be built from the ground.

6. Two closets, properly located, must be built.

7. It is understood that the school shall be run at least five months each year.

PROPOSITIONS.

For a one-teacher schoolhouse the community and county authorities must raise in cash, material, and labor, \$750. The Rosenwald fund will contribute \$400.

For a two-teacher house the community and county authorities will raise, as above, \$1,000. The Rosenwald fund will give \$500.

In cases of consolidation of two or more schools the Rosenwald fund will contribute more.

Any and all parties interested in this much-needed work will address the writer at Milner, Pike County, Ga.

Respectfully,

GEO. D. GODARD,
Special Rural School Supervisor.

The Rosenwald fund is handled by the extension department of Tuskegee Institute. The table below, furnished by the institute, shows how the Rosenwald schools have been built and how they are divided between the several States:

Data of rural schoolhouse building aided by Mr. Julius Rosenwald.

(As of September 1, 1918.)

States.	Number of school- houses.	Amounts contributed by—				
		States.	White people.	Colored people.	Mr. Rosen- wald.	Total.
Alabama.....	179	\$43,776.00	\$8,445.00	\$91,764.93	\$55,450.00	\$199,435.93
Arkansas.....	22	10,525.00	1,435.00	8,654.00	9,500.00	30,114.00
Georgia.....	23	2,975.00	10,202.00	17,532.00	7,500.00	38,209.00
Kentucky.....	5	6,046.00	250.00	4,011.50	2,600.00	12,926.50
Louisiana.....	49	9,300.00	3,000.00	33,390.00	17,600.00	63,290.00
Maryland.....	4	2,700.00	500.00	1,125.00	1,450.00	5,775.00
Mississippi.....	23	3,613.50	13,644.95	19,253.25	12,276.00	48,787.70
North Carolina.....	85	31,651.00	3,926.50	35,787.75	24,365.00	95,730.25
South Carolina.....	9	3,300.00	8,376.00	5,696.00	3,900.00	21,272.00
Tennessee.....	50	72,905.00	3,870.00	26,150.00	39,175.00	142,100.00
Virginia.....	38	26,555.00	750.00	21,784.90	19,800.00	68,889.90
Total.....	501	213,346.60	54,399.45	265,179.23	193,616.00	726,540.18

The above figures represent amounts put in the construction and furnishing of the school buildings. Besides the \$193,616 spent in this way by Mr. Rosenwald, he has put in \$23,406.84 up to September 1 by way of agents' salaries, traveling expenses, etc., in promoting the movement for better schoolhouses in various States.

PHELPS-STOKES FUND.

For the past five years the Phelps-Stokes fund has financed a staff of workers in the Bureau of Education. Since the publications of Bulletins 38 and 39, 1916, the agents of the fund, as special collaborators of the Bureau of Education have followed up the study of Negro education with constructive work. One member of the staff who is trained in business methods and accounting gives all his time to the improvement of accounts and records in the schools. Schools have been given assistance in their efforts to adapt their courses to the needs of their pupils and community. Fraudulent Negro schools have been exposed, and the needs of worthy institutions brought to the attention of interested persons. A bureau of information has been maintained. Campaigns for the teaching of gardening and for the improvement of living conditions in dormitories have been carried on. The fund's agents have kept in touch with educational boards of the various churches, other educational funds, the public-school authorities in the several States, independent schools and land-grant colleges, and have endeavored to have these agencies coordinate their efforts. Individual schools have been given financial aid for maintenance. Fellowships for the study of the race question have been established at two State universities in the South. The relationship now existing between the Bureau of Education and the Phelps-Stokes fund will cease by operation of law on July 1, 1919, and no appro-

priation has been made to carry on the work of the Bureau of Education for colored schools.

PUBLIC SCHOOL FACILITIES.

The public schools for Negroes in the South, especially in those counties where the negroes outnumber the white people, are not doing efficient work, because of small salaries paid to teachers, short terms, and poor school buildings. In the annual report of the Alabama Department of Education we find the statement that:

The amount paid for salaries in the public schools of the State amounted to \$3,145,604 for white teachers—an average annual salary of \$481 for each man and \$363 for each woman, almost precisely what they were the year before, and despite the fact that the high cost of living is constantly increasing.

As for the Negro schools, we learn that:

In the schools for negro children last year 641 men and 1,931 women were employed. There was a slight decrease in the number of both men and women, due to the egress of Negroes to other States. There was expended in the form of salaries upon the teachers so employed \$399,970, a decrease of \$20,185 from the preceding year. The average salary paid to each man was \$167 and to each woman \$152, and the length of the school term was 104 days.

The report has this to say about the Negro teachers in Alabama:

The grades of certificates held by that portion of the 2,572 teachers who were required to hold State certificates were as follows:

Life -----	120
First grade-----	23
Second grade-----	606
Third grade-----	1,802

So far as the qualifications of the teachers are concerned, there seems to be no improvement over the preceding year.

The results of the inadequate public-school facilities appear from the discussion of school attendance in the report:

ATTENDANCE.

The average attendance in schools for whites in 1915-16 was 214,294, and in 1916-17 an increase of 5,740 brought the total up to 220,034. It is to be remarked that this net increase was the result of approximately a 3 per cent increase in the number attending elementary grades and of a 24 per cent increase in the number attending in high-school grades. Based on the latest census returns, the percentage of attendance upon enrollment was 63. Because of the removal of Negroes to the East and North, the average attendance in their schools showed a decrease of 3,459 from the number for 1915-16, of 97,384.

Using the school census as a basis, 50 per cent of the white boys and girls were in average daily attendance and 29 per cent of the Negro boys and girls. Making due allowance for those of school age who attended district agricultural schools, county high schools, private denominational and parochial schools, and institutions of college and secondary grade, the results are still far from satisfactory, as the following tables will show:

Enrollment.

Year.	Rural.		Urban.	
	White.	Negro.	White.	Negro.
1915-16.....	292,960	135,807	51,521	22,814
1916-17.....	293,389	133,325	54,838	23,404

Average attendance.

Year.	Rural.		Urban.	
	White.	Negro.	White.	Negro.
1915-16.....	174,170	85,417	40,124	15,426
1916-17.....	178,666	82,600	41,368	14,724

From an examination of the above, it would appear that there has been a somewhat normal increase both in rural and in urban enrollment and attendance in white schools and a positive decrease in the case of negro schools. This latter condition is due to the leave-taking of the negroes as already suggested.

From the above quotations it will be seen that the superintendent of education in Alabama explains the decrease in the number of Negro teachers and pupils by the migration of Negroes from the South. The white men and colored men who have investigated the movement are agreed that the poor public-school facilities were among the most important causes of the exodus.

The following table shows the increases in the amounts appropriated for the salaries of Negro teachers in five of the Southern States. The figures for the earlier years are those used in Bulletin 39, 1916. It will be seen that, while in every case there has been an actual increase, there has been very little increase in the proportion of the total salaries, and in the case of Florida and North Carolina there have been actual decreases in the proportion. In considering the figures in the table it should be remembered that between 1900 and 1910 the white population of the Southern States increased faster than the colored, and it is only reasonable to assume that this has been the case since 1910.

Increase in salaries of Negro teachers in five States.

States.	Date of report.	Salaries.	Per cent of total.	Date of report.	Salaries.	Per cent of total.
Florida.....	1910-11	\$167,381	14.2	1916	\$214,201	11.6
Georgia.....	1911-12	483,622	14.3	1917	555,822	14.8
Louisiana.....	1911-12	211,376	7.0	1915	263,515	7.6
North Carolina.....	1910-11	340,856	16.6	1916	563,273	14.1
Virginia.....	1911-12	421,381	13.2	1916-17	626,555	14.7

INCREASED INTEREST ON PART OF PUBLIC-SCHOOL OFFICERS.

That educators and other leaders of thought in the South realize that the situation calls for action is shown by the official reports of State superintendents of education. In his biennial report for the school years 1914-1916, the superintendent of public instruction devotes several pages to a discussion of the education of the Negro. The last two paragraphs of his statement are reproduced here as expressing what may fairly be considered the attitude of the thinking white people of North Carolina:

This question of Negro education is, after all, not a question of whether the Negro shall be educated or not, for it is impossible for any race to remain in this great Republic in the twentieth century uneducated. The real question is, therefore, how he shall be educated and by whom it shall be done. If his education is not directed by us, others that do not understand our social structure, that are ignorant of the nature and needs of the Negro and have false notions of his relation to the white race in the South, will take charge of it. Our safety, then, lies in taking charge of it ourselves and directing it along lines that shall be helpful to him and to us and in harmony with our civilization and society and with his nature.

There is another phase of this problem of Negro education worthy of the serious consideration of our people. It is manifest to me that if the Negroes become convinced that they are to be deprived of their schools and of the opportunities of an education, most of the wisest and most self-respecting Negroes will leave the State, and eventually there will be left here only the indolent, worthless, and criminal part of the Negro population. Already there has been considerable emigration of Negroes from the State. There is no surer way to drive the best of them from the State than by keeping up this continual agitation about withdrawing from them the meager educational opportunities that they now have. Their emigration in large numbers would result in a complication of the labor problem. Some of our southern farms would be compelled to lie untenanted and untilled. The experience of one district in Wilson County some years ago illustrates this. The county board of education found it, for various reasons, impossible to purchase a site for a Negro schoolhouse. Before the year was out the board received several offers from farmers in the district to donate a site. Upon inquiry by the chairman of the board as to the reason of these generous offers, he was told that when it was learned that no site for the schoolhouse could be secured and that the Negroes were to have no school in that district at least one-third of the best Negro tenants and laborers there moved into other districts, where they could have the advantages of a school. This is a practical side of this question that our people would do well to consider. What happened in this district will happen in the entire State if we give the best Negroes reasonable grounds to believe that their public-school privileges are to be decreased or withdrawn.

In his annual report for 1916-17, the superintendent of public instruction of Virginia says:

COLORED SCHOOLS.

Our seventh department of special effort was concerned with the negro schools. We rejected the idea that the Negro should remain uneducated, but were just as firmly of the opinion that the old type of scholastic education

which has been provided for him was in many respects a misfit. In our efforts to give him a better chance mentally, morally, and physically we have been aided at every turn by the wise and earnest men who have been placed in charge of the General Education, Slater, and Jeanes funds, and very largely also by the administrative officers of both our Federal land-grant schools, the Virginia Polytechnic Institute, and the Agricultural and Industrial Institute at Hampton.

Nearly every county in Virginia with a large Negro population is now served by a colored industrial supervisor, part of whose salary is paid by one of the foundations named above or out of the Smith-Lever fund, which is disbursed by the Virginia Polytechnic Institute. These supervisors have gone among the colored people and urged them, first, to build schoolhouses; second, to lengthen the school term; third, to put their children in school. They have also fostered the industrial type of training which has grown so much in favor among both white and colored teachers during recent years. Our own State school for colored youth, the Virginia Normal and Industrial Institute, at Petersburg, the Colored State Teachers' Association and the Negro Organization Society have also contributed intelligently and powerfully to the success of this movement.

WORK OF THE NEGRO SUPERVISORS.

During the 1916-17 session 49 supervising industrial teachers were employed to assist in the supervision of the Negro schools of 48 counties and 2 cities. Their instructions were to introduce industrial work as far as practicable and to encourage other forms of educational progress. Something of the magnitude of the work of these teachers and the results obtained may be brought out by mentioning the following facts:

In the 48 counties in which they worked there reside 68.1 per cent of the Negro children of school age in the counties of Virginia, 61.5 per cent of whom were enrolled in the schools; 8,389 visits were paid to 1,364 teachers working in 1,024 buildings; 607 of these teachers extended their school terms partly through money raised by the people, for which purpose they report the raising of \$9,640.74.

The supervising industrial teachers report that 851 of the 1,024 buildings under their supervision have active school improvement leagues, and report further that in addition to the money raised for term extension they raised for other purposes \$34,361.09, making a total voluntary tax for school purposes in the 48 counties with supervisors of \$44,011.83. To secure this splendid addition to the school revenues the counties expended a little over \$8,000 for the salaries of the supervising industrial teachers, the sum total of whose salaries amounted to a little less than \$25,000.

The superintendent of education in South Carolina, in his report for 1918, points out the difficulty that has hindered the development of an effective public school system for Negroes—the lack of a public sentiment favoring Negro education. In recommending a special appropriation of \$20,000 to be expended for the betterment of Negro schools, he says:

NEGRO SCHOOLS.

For the first time in the history of our public school system, the State superintendent's office has undertaken definitely the betterment of our Negro schools. Through the cooperation of the General Education Board of New York, the salary and the traveling expenses of a State agent for Negro schools have been secured.

The task is difficult. Houses, terms, salaries, equipment, standards—all these are low. Funds are limited. A foundation must be laid in public opinion and in public support before a definite program can be outlined and undertaken.

The present welfare and the future progress of the State are indissolubly linked with the development of our entire population. A careful perusal of the chapter dealing with Negro schools will show specifically the work undertaken during the year. The cooperation of outside agencies is readily acknowledged. The attitude of the Negro has been appreciative, and in my opinion the time has come when the general assembly ought to authorize and direct a campaign for better health and better industrial conditions among our Negroes.

The foundation for such an effort lies in the schools. The prejudice that has long hampered the progress of the Negro youth has been largely modified by the events of the past two years. The first step in the program for their betterment would be a modest appropriation to be expended solely in Negro schools.

RECENT PUBLICATIONS.

From time to time the various State departments of education issue pamphlets showing the progress that has been made in Negro education. As representative of these, Bulletins 9 and 10 of the Georgia Department of Education may be cited. These leaflets contain the reports of the Home Makers' Club Workers and the Jeanes Industrial Teachers. The Department of Public Instruction in North Carolina issues a "Monthly Progress Letter" reporting the activities of field workers in that State. The most significant publication of the year is one issued by the Louisiana Department of Education, entitled "Aims and Needs in Negro Public Education in Louisiana." The frank and fearless discussion of the problem, contained in this bulletin, is shown by the following paragraph:

It may be well to point out here that in some sections of the State the Negro is not receiving for the education of his race the direct school taxes that he contributes. To fail to grant him this amounts to confiscation. Segregation of funds or taxes for the two races is undesirable, but let us not take from the negro, by throwing all tax money into a general fund, what he is clearly entitled to. Surely this includes a just share of State taxes, a just share of corporation taxes, all fines that his race pays, and the indirect school taxes that he pays as renter and as laborer in helping to produce the wealth of the State. In dealing with this question we must learn to apply the same standards of honesty and fairness that we use in dealing with the different white schools and white communities. Only through the exercise of justice and fair play may we expect justice and fair play in return, and as a result of this, good feeling and good citizenship.

EDUCATIONAL MEETINGS.

The National Association of Teachers in Colored Schools held its fifteenth annual meeting at Harpers Ferry, W. Va., July 31 to August 2. This was the most important educational gathering of the year. A number of State teachers' associations met during the year. These associations have worked to raise the standard of the

teaching profession, and have cooperated with State superintendents in many ways. On account of war conditions, the Association of Colleges for Negro Youth was unable to hold its annual meeting.

CHURCH BOARDS.

The American Baptist Home Mission Society has adopted the policy of concentrating its efforts at one or two schools in a State, and has therefore withdrawn its aid from some schools which it supervised but did not control. The American Missionary Association is following the policy of discontinuing schools where the public school facilities become adequate, and increasing the support of other institutions. The Freedmen's Aid Society of the Methodist Episcopal Church has discontinued its appropriation to Walden College, at Nashville, Tenn., and the property of Walden has been given to Meharry Medical College. The board has decided to sell the property of New Orleans College, at New Orleans, La., and of Gilbert Industrial Institute, at Baldwin, La. Only one school will be maintained by this board in Louisiana. It will be located in a section where a secondary school is needed.

The Christian Woman's Board of Missions now maintains five schools, and property has been purchased for another one. The Presbyterian Board of Missions to the Freedmen reports new presidents at two schools maintained by the board. The Society of Friends has determined on the policy of enlarging the Cheyney Training School for Teachers, at Cheyney, Pa. The American Church Institute for Negroes of the Protestant Episcopal Church reports a growing appreciation of the importance of accurate accounting and businesslike administration in the schools under its control.

The educational boards of the African Methodist Church, the A. M. E. Zion Church, the Colored Methodist Episcopal Church have given evidence of their willingness to improve the accounting, buildings, and supervision of students in the schools under their control.

PRIVATE AND DENOMINATIONAL SCHOOLS.

The financial problems which many of the private and denominational schools now face were brought to the attention of the public by the Commissioner of Education in the following circular letter, which was sent by the bureau to 5,000 persons interested in Negro education:

DEPARTMENT OF THE INTERIOR,

BUREAU OF EDUCATION,

Washington, October 8, 1918.

DEAR SIR: I am writing to call your attention to the special war-time needs of many of the colored schools.

As you know, most of the secondary and higher schools for Negroes in the South are supported by private philanthropy. These schools are largely de-

nominational, and have some assured, though inadequate, support from the church organizations back of them. But many of the best private schools, including especially the effective small schools of the industrial type, are independent in character, and have no income except from donations.

The demands which the many necessary war appeals have made on the public purse have made it almost impossible for these private schools to raise enough money to keep open. Church organizations have found that contributions have been somewhat lessened, and the independent schools have experienced considerable difficulty in raising funds. At the same time the high prices of food and materials have made it necessary for the schools to raise more money than ever to maintain the old standards. A number of the best teachers have gone into the service of the Nation, many of them teachers who, from sheer devotion to the work, had served for low salaries. The high cost of living has forced other teachers to seek more remunerative fields of labor.

Some Negro schools are well known and have many influential friends. But many worthy schools, both of the academic and industrial type, are not so widely known. They need money urgently; they need money not only to do the necessary work that they have been doing for years, but they need more money to provide the special training imperatively needed for large numbers of colored people in the war emergency. Contributions to schools that are doing a necessary war work should make a patriotic appeal to anyone who has the means to give to education. It should not be forgotten, however, that nothing is gained by responding to appeals for gifts to schools that do not exist or have no value as educational institutions. Many such appeals are made.

Determination of the relative merits and needs of colored schools has become a much more simple matter since the publication of Nos. 38 and 39, *BULLETIN*, 1916, of the Bureau of Education, which list practically all the colored schools of the South, with descriptions and recommendations for each school. The bureau will gladly supplement the information contained in this report and answer any questions in regard to these schools.

Sincerely, yours,

P. P. CLAXTON,
Commissioner.

CHAPTER XVIII.

EDUCATIONAL SURVEYS.¹

By EDWARD FRANKLIN BUCHNER,
Professor of Education, Johns Hopkins University.

CONTENTS.—State surveys—County surveys—"Town" surveys—City surveys—Vocational education surveys—Higher educational institutions—Negro education—Foreign surveys—Miscellaneous—Unpublished surveys.

The educational survey has ceased to be a mere event or an occasional happening. It has been critically transformed into a permanent means of progress. Changes in the educational conditions of a given system are now to be expected not merely from the initiative and push within, but are actively sought for as the outcome of an objective and unbiased study of the situation. The establishment of standards based on current practices and the more exact definition of the relations which should obtain in the dynamics of educational support and organization, of teaching and learning, have made possible the increasing number of scientific approaches to the task of formulating qualitative and quantitative judgments concerning communities and their schools. The system of schools set up and maintained by a State, county, or city is a most important form of human behavior, and therefore worthy of the intensive study essentially characteristic of a survey. The synthetic judgment in which the study culminates, prophetic of vital readjustments to be made, is possible only to the survey whose scientific acumen is guided by a fertile imagination drawing from the now rich stores of ranks, standards, and measurements possessing both accuracy and applicability.

¹ This chapter is the fourth report in the special series presenting a record of the educational-survey movement. In the report of the Commissioner of Education for the year ended June 30, 1914 (Ch. XXIV, vol. 1, pp. 513-562), and also June 30, 1915 (Ch. XVIII, vol. 1, pp. 433-492), appeared the first two reports of school surveys in the United States. The educational inquiries and surveys, the reports of which, with two exceptions, had been published up to the close of each of the two years, respectively, were analyzed with reference to the place and time, the authorization, the details of the staff, the situation leading to the inquiry, the method and scope, and the fundamental problems investigated, with a summary of the more important findings and the recommendations.

The third report, appearing in the report of the Commissioner of Education for the year ended June 30, 1916 (Ch. XXI, vol. 1, pp. 363-371), included those surveys of which the reports had been published during the year under review or were in process of publication, and listed those surveys the reports of which remained unpublished. This fourth report presents an account of the surveys which have been published during the biennium 1916-1918 or are in process of publication, listing those which may not be published.

The permanency of the survey as an American means of educational progress is clearly shown by the greatly increased number made during the biennium of 1916-1918, which this report reviews. Of the 157 surveys (including 7, the reports of which are unpublished) made during the past seven years, 73, or 47 per cent, were made during the last two years. The 147 published reports present the results of extensive, or special, studies of districts, in whole or in part, thus distributed: United States, 1; States, 18; counties and "towns," 40 (reporting on conditions obtaining in 67, 3 counties in one instance being "typical" of a State); cities, 59; higher institutions, 10 (covering 24 institutions); vocational, 13; and special, 6. The average number of surveys per year made during the entire period is 22. During the biennium the annual average is over 36. The 69 survey reports published (or in press) during these two years show in their distribution a steady widening of the field of application: State, 8; county and "town," 24 (reporting conditions prevailing in 49); city, 22; higher institutions, 5; vocational, 6; and special, 4.

The survey continues to extend its services in general, ranging from an almost complete reorganization of a system to the easing of a local "situation"; and in particular, such as showing the limitations of the school plant and furnishing a building program for several years to come, specifying costs of operation and instruction and revealing untouched financial resources, discovering the attainments of pupils in classes, buildings, and districts, and thus pointing out new functions in the field of supervision, extending more exact inquiry to include additional subjects as music, drawing, and school gardening, and formulating the teaching norms characteristic of a city, county, or State. The survey has more than "paid for itself" by showing that we can not cheapen education. It has become an effective means for the explanation and the preparation of a supporting community for the rapidly and inevitably increasing costs of public education (e. g., the bond issues of St. Louis, St. Paul, and Harrisburg). A most striking feature of the survey changes in the biennium is to be found in the adoption of some of its distinctive methods by superintendents, particularly of city schools, in their annual reports or special publications. This form of "auto" surveying at once disseminates in the community more accurate and intelligent information concerning schools, and places a new interpretation upon the meaning of educational administration in practice. Important increments to our scientific knowledge of educational processes and results are being made through the greater attention given to the measurement of the achievements of pupils by the inclusion of standard scales and tests. What can we tell about a school system having

exact information about this, that, or another trait, is a question the survey has enabled us to answer with increasing certainty. The duty of comprehending the educational survey is thus laid alike upon the public, both parent and taxpayer, the practitioner, and the student of education, for it has ceased to be a mere event or an occasional happening.

In connection with these general features and before taking up the details of survey activities during the biennium, it should be noted that a view of the special significance of the educational survey as a means of progress and of the activity of the Bureau of Education in forwarding this movement by extensive participation therein is set forth in the report of the Commissioner of Education for the year ended June 30, 1917 (Vol. I, Chap. II, pp. 19-44). It is important to observe how legitimately the educational survey has fitted in with the conditions of national progress as envisioned in the congressional legislation half a century ago. The Commissioner of Education thus calls attention to this situation, as a preface to the extended summaries of several important surveys conducted by the bureau which are included in this account of its varied activities during 1916-17:

In its educational survey work the Bureau of Education is carrying out in the most direct manner possible the task contemplated in the original act [1867] creating the bureau. * * * It is precisely this function that the educational survey fulfills. * * * It is becoming more and more evident that the educational survey constitutes a type of service most appropriately rendered by the Federal Bureau of Education.

STATE SURVEYS.

*Illinois.*¹—This survey presents most of the results of a State-wide survey growing out of a resolution passed by the Illinois State Teachers' Association in 1913. After a period of conferences and committee organization, it was decided to investigate "the children; the teachers; the program of studies; the school plant; finances; organization, administration, and supervision; the school and the community; conditions affecting vocational education; and the rural schools," with a special investigator in charge of each division. "It was not possible to present complete and detailed reports upon all of these topics, partly because the investigators were not free to secure the information at first hand and partly because of limited resources." "The committee was handicapped not only by a lack of funds, but by the failure of certain agencies to cooperate with the movement and by the unfriendly attitude of certain members of the

¹ Illinois School Survey: A Cooperative Investigation of School Conditions and School Efficiency. Initiated and Conducted by the Teachers of Illinois in the Interest of All the Children of All the People. By L. D. Coffman, director. 877 pp. Published by order of The Illinois State Teachers' Association, 1917.

teaching force." The method of securing information employed the questionnaire extensively, with the visitation of a total of 173 rural schools by three investigators.

The report of the Illinois school survey, accordingly, includes 11 reports on the following specific topics:

The economic status of teachers in Illinois, by L. D. Coffman.

Program of studies in town and city graded elementary schools, by W. C. Bagley.

The technique of superintendence, by L. D. Coffman.

School finances, by David Felmley.

Student population and related problems in high schools, by J. A. Clement.

Spelling scores for 54 Illinois cities, by J. F. Bobbitt.

Arithmetic scores in seven Illinois cities, by J. F. Bobbitt.

Some exceptional high-school pupils in Illinois, by E. E. Jones.

The rural schools: Reports by Caroline Grote, Edgar Packard, and Joseph H. Hill.

Alabama.—The 1915 session of the Legislature of Alabama authorized the submission to the qualified electors of the State, to be held in November, 1916, of an amendment to the constitution permitting the several counties in the several districts of any county to levy and collect a special tax not exceeding 30 cents on each \$100 worth of taxable property for school purposes. The department of education of the State, accordingly, undertook a special study of educational conditions which would enable the voters to act in the light of knowledge when voting upon the proposed amendment. It issued in July, 1916, "A Comparative Study of the Public School Systems in Alabama and Other Typical States and an Exhibition of Educational Conditions in the 67 Counties of Alabama." (Bulletin No. 55, 32 pp.) The States chosen for comparative purposes included Florida, Georgia, Massachusetts, Mississippi, Ohio, Tennessee, and Washington, the data being derived from the report of the Commissioner of Education for 1914. The study of conditions in the several counties in the State related only to whites, including both rural and city districts. The special topics presented include: Children in school and out; length of school year and average attendance; average annual expenditure per pupil enrolled; teachers and teachers' salaries; average number of pupils per teacher; grades of certificates; investment in school plant; and illiteracy in Alabama. The entire material of the bulletin is organized after the pattern of "A Comparative Study of Public School Systems in the 48 States," issued by the Russell Sage Foundation in 1912.

Colorado.—The "Report of an Inquiry into the Administration and Support of the Colorado School System made under the Direction of the United States Commissioner of Education" was issued as Bulletin, 1917, No. 5 (93 pp., 48 tables). The scope of this study,

which was made upon the request of the Colorado State Survey Committee, "was confined to an investigation of the administration and support of public elementary and secondary schools and their immediate effects upon conditions determining the character of work done in these schools." The inquiry was made by A. C. Monahan and Katherine M. Cook, both of the Bureau of Education, who were in the State during a considerable time in the months of September, October, and November, 1916. The detailed topics taken into consideration include the State of Colorado and its educational system, general administration, revenue and support, and the administration of school instruction. Chapter II presents a summary of the 25 recommendations made to meet "Colorado's greatest need in public education" which was found to be "a type of centralized organization, now wholly lacking, which would furnish the leadership and guidance necessary to insure State-wide progress."

Arizona.—Because of its recent admission to statehood and the formative stage through which its educational development is passing, especial interest attaches to the study of "Educational Conditions in Arizona: Report of a Survey by the United States Bureau of Education," and issued as Bulletin, 1917, No. 44 (196 pp., 86 tables, and 15 plates). The inauguration of the movement leading to the survey was made by the Arizona School Officials' Association early in 1915. Toward the close of this year, the State superintendent of public instruction requested the Bureau of Education to conduct the survey, which was begun in the autumn of 1916. The members of the bureau assigned to the study included A. C. Monahan, J. C. Muerman, Katherine M. Cook, W. S. Deffenbaugh, F. B. Dresslar, H. W. Foght, and Samuel P. Capen. The study made of the State university was assisted by Livingston Farrand. In addition, assistance was rendered by State and educational officers, and questionnaire returns from 81 per cent of the teachers and several hundred other citizens in the State.

The topics presented in the report include the State of Arizona and its educational system, the status of elementary and secondary education, the State normal school and the department of education in the State university. Chapter II, which deals with secondary and elementary education, comprises about two-thirds of the report and presents considerations of State administration, county and district administration, revenue and support, urban school districts, high schools, elementary school attendance, and instruction. The problems involved in the supply of teachers were the chief feature of the study made of the State normal school and the department of education in the State university.

The 10 groups of recommendations for the improvement of educational conditions in the State are:

1. Centralization of the State school system, placing the responsibility of the administration of the public-school system definitely upon the State board of education and the State department of education working in cooperation with the county boards of education and school-district trustees.
2. Reorganization of the State board of education, conferring upon it enlarged powers.
3. Provision for a nonpolitical State superintendent who shall be the head of an enlarged and more effective State department of education.
4. Provision for county control of county school funds through county boards of education and nonpolitical county superintendents.
5. Reorganization of the method of apportioning State funds on a basis which recognizes county and local effort.
6. Requirement of a higher standard of general and professional education for teachers, a revision of the method of certification, establishment of a certification division in the State department of education, which shall be also a teachers' employment bureau.
7. Means to encourage the erection of suitable school buildings and to prevent the erection of undesirable ones.
8. Rearranged course of study especially to meet the conditions in the one-teacher schools.
9. Provision for expert supervision of rural schools.
10. Reorganization of the method of handling State textbooks to prevent unnecessary losses.

South Dakota.—A complete scheme for the reorganization of the system of public education in South Dakota, in order to bring its administration into conformity with the best current practice, to secure a more effective unification of the schools and higher institutions, and to eliminate various disturbing political factors, is presented in the recommendations of the report made by the State educational survey commission announced in June, 1918. The commission was appointed by the governor in accordance with the act of the legislature in 1917, appropriation having been made to meet the expenses of the study. The inquiry was conducted under the direction of the Commissioner of Education, the field work and preparation of the report being in charge of Harold W. Foght.

The report, which will be published as a bulletin by the Bureau of Education, includes these topics: The topography of South Dakota; economic conditions; the kind of schools best adapted to an agricultural people; the present system of education; rural elementary and high schools; town and city elementary and high schools; State, county, and rural school organization and administration; supervision of city, town, and county schools; the preparation and certification of teachers, and teacher training in the several public and denominational institutions; the State university; the State college of agriculture; the State school of mines.

Chapter XXI presents a summary of the most important legislative and administrative recommendations offered, among which are the following: (1) Constitutional amendments enlarging the powers and duties of the present State board of regents so as to unify the system and to secure the election by this board of the State superintendent of public instruction; (2) reorganization of rural schools so as to reduce to a minimum the number of one-teacher schools and to increase the number of consolidated and rural high schools, to secure enlarged school plants, homes for teachers, and a more permanent staff of teachers receiving more adequate salaries, and, to readjust the school year in conformity with the growing season and the occupational interests of communities; (3) reorganization of school districts outside of present independent town and city districts into the county-unit system, with county boards of education having specified powers and duties, including levying a uniform county school tax and equalizing educational advantages among all school children in the county; (4) the provision, new for South Dakota, for a State school tax amounting to about one-third of the total school maintenance, and also a permanent millage tax for the support of the higher institutions in lieu of present legislative appropriations; (5) the improvement of teachers' qualifications and teaching conditions.

Iowa.—The novel attempt to discover and formulate State norms in the attainments in certain subjects by children under instruction in public schools is exemplified by the two following monographs: "Handwriting of Iowa School Children," by Ernest J. Ashbaugh, University of Iowa, Extension Division Bulletin No. 15, March 1, 1916 (24 pp., 10 tables, 6 figs., 4 graphs); and "The Arithmetical Skill of Iowa School Children," by Ernest J. Ashbaugh, University of Iowa, Extension Division Bulletin No. 24, November 1, 1916 (63 pp., 17 tables, 31 figs.).

The first study attempts to answer these questions:

1. How well do Iowa school children write?
2. Do children improve their quality of writing regularly as they progress through the grades?
3. Do children attending school in towns and cities write better than those attending the rural schools?
4. Do the children in the larger cities write better than those in towns or small cities?
5. How do children in this State compare with children in other States?
6. Is the quality of writing of the average eighth-grade child sufficient to satisfy the ordinary demands of everyday life outside of school?

The data on basis of which the answers could be formulated were secured during the school year 1914-15, being a total of 28,000 papers received from 110 cities and towns and from rural schools in 14 coun-

ties. The scoring of the papers was based on Ayres's measuring scale for handwriting. In general, it was found that, "on the average, Iowa children are writing as well as children of like grade elsewhere in the United States and at a greater speed, with the exception of the eighth grade, which is only a little slower."

The second study attempts to secure answers to these questions:

1. How skillful are Iowa school children in performing the four fundamental operations in arithmetic?
2. How does the skill of Iowa school children compare with that of children of like grade in other States?
3. How does the skill of children in small towns compare with that of children in larger towns and cities?
4. What use can be made of standard tests?

The data were secured by the extension division of the university, through whom arrangements were made for the giving of the Courtis Series B tests during the last two weeks of the school year 1915-16. Papers were secured from about 13,000 pupils in 52 cities and towns, the teachers checking the papers and recording the number of "attempts" and "rights." Class-record sheets, which were accepted as accurate, were then handled by the extension division in order to secure the information sought by the four questions. It was found that the speed is greater in the lower grades than in the upper, and the accuracy may be improved in most grades, especially in addition and multiplication. In comparison with the children of Indiana, Kansas, and Minnesota and the Courtis general scores, Iowa children excel in most grades and operations. The study seems to throw "some light on the justice of the criticism" which specifies the inaccuracy in arithmetical ability on the part of children who complete the common-school course.

In "Vocational Guidance in Music," by Carl E. Seashore (University of Iowa Monographs, First Series No. 2, September, 1916, 11 pp.), announcement is made of the provision in the psychology of music studio for the conduct of music surveys in the public schools. This development of grade tests in music for vocational guidance represents additional equipment for school survey purposes.

Wisconsin.—A contribution toward the improvement of teaching in public schools, as well as the formulation of a measure of the success of the instruction given and representative of the practices characteristic of the State, is presented in "A Report on the Use of Some Standard Tests for 1916-17," by W. W. Theisen, and issued by C. P. Cary (Studies in Educational Measurements in Wisconsin, Bulletin No. 1, 1918, Madison, pp. 120, 45 tables and 9 figures).

These "tentative Wisconsin standards of achievements" in spelling, arithmetic, handwriting, composition, and reading were derived from an extended plan of cooperative research, aided by members

of the State department of education, city and county superintendents and teachers, under the direction of the State supervisor of educational measurements. In addition to the pupils' work, the study sought by questionnaires certain facts as to the course of study and organization of instruction in the subjects tested in order to find possible correlative explanations of the results obtained in some of the tests.

The spelling of 36,564 pupils in rural, "State graded," and high and city schools was tested by the Ayres scale, and found "to be from one-half year to a full year behind" its standards, city pupils falling below the others. The attainments in the four fundamental operations in arithmetic of varying numbers of the third to eighth grade pupils in a total of 21 cities were measured by the Woody test series A, and proved to be up to standard in the three lower grades, but below in the three upper grades. The handwriting of 7,231 children in rural, graded, and city schools, second to eighth grades, was scored in quality by the Thorndike scale, and compared, also, through conversion by Kelly's method, with Freeman's and the Iowa standards, and shown to fall below them, excepting that the best Wisconsin handwriting both in quality and speed appears to be in the rural schools. The Hillegas scale and the Nassau County supplement to the Hillegas scale were used in the effort to secure a representative State measurement of the results in English composition of 5,848 children of the third to eleventh grades in 15 cities, and revealed that "the children as a whole in these Wisconsin cities do not make a commendable showing." Results in the reading of 7,549 children, tested by the Kansas silent reading test, as reported by 18 cities, two cities including scores made by high-school pupils, show Wisconsin children to be below the standard performances in the third and fourth grades, and above in the fifth to eighth grades.

COUNTY SURVEYS.

Georgia.—What may be designated as the Georgia method of county school survey, illustrated in the material of former reports, continues to be applied during the biennium by M. L. Duggan, rural school agent, acting under the direction of the State department of education. The present list includes:

No. 11. Tattnall County, 1916. No. 12. Screven County, 1916. No. 15. Brooks County, 1917. No. 16. Hart County, 1917. No. 18. Spalding County, 1917. No. 19. Towns County, 1917. No. 20. Jones County, 1918. No. 22. Candler County, 1918. No. 23. Tift County, 1918. No. 24. Ben Hill County, 1918.

By noticing the different existing features placed under the several rubrics used in describing existing conditions, one can see the several lines of change and improvement which are appearing in rural sec-

tions in this State from year to year. For example, No. 11 specifies that "moonlight" schools or "no moonlight" classes are organized. No. 15 notes as a new feature "clubs" or "no clubs," such as canning, corn, pig, and poultry, organized. Nos. 16 and 18 emphasize the contrast in outlays for schools as compared with courthouses and jails, and urges a wider extension of a county tax levy and a district tax levy. No. 19 lists the rubrics by means of which one may score a school as standard. No. 22 shows the importance of compulsory attendance, and No. 23, the advent of "the school pig."

A most interesting application of the "survey" type of handling official statistical data in the training given to prospective teachers may be found in "A Brief Social and Economic Survey of Muscogee County," by Ella Jones, and published by the Georgia Club as a bulletin of the State normal school, Athens, Ga., June, 1917 (14 pp.), and "A Brief Social and Economic Survey of Floyd County," by Estelle Hughes, September, 1917 (15 pp.). Similar studies have been made of Clarke, Putnam, and Webster Counties by students at the normal school under the direction of Prof. F. A. Merrill.

Indiana.—That survey reports may serve two forms of educational service is illustrated in the "Educational Survey of Greene County, Ind.," by Supt. Daniel C. McIntosh, published in June, 1916, (110 pp.). "To present the facts, just as they were at the time of the investigation (1913-1916), so they may be understood by everyone, and then to make some practical suggestions to better conditions," were the main objects of this study. The report was also submitted in partial fulfillment of the requirements for the degree of master of arts in the school of education, Indiana University. The material was collected by the county superintendent, with the aid of teachers and principals in the performance of their respective duties, and is arranged in 10 chapters, 29 tables, and 26 figures. The details include: The location and history of the county; the topography, resources, and transportation; the economic, social, and religious conditions; the history, organization, and administration of schools; the physical plant; the teachers; the pupils; programs and curriculum; financial; summary and recommendations. The appendix includes the blanks which were employed in collecting the data and a brief outline of the survey of a rural county.

Texas.—"A Study of Rural Schools in Travis County, Tex.," by E. E. Davis, of the University of Texas, department of extension, division of school interests (Bulletin of the University of Texas, 1916, No. 67, 53 pp.), is also a study that served a double purpose, namely, "to make an accurate and scientific estimate of public education" in a part of Travis County, and to be a chapter of a thesis offered in connection with the requirements for the degree of master of arts

in the University of Texas. The scope of the material includes: Economic and social conditions; finances; grounds, buildings, and equipment; course of study; teachers; pupils; conclusions and recommendations. In dealing with the course of study use was made of a number of tests for measuring the achievements of pupils, such as Ayres's scale in handwriting, Thorndike's reading scale, Courtis's series B, for speed and accuracy in arithmetic, and Starch's reasoning tests, scale A, in arithmetic. An attempt was made to use Ballou's scale for measuring English composition, but, owing to certain difficulties, the plan was not executed.

In February, 1917, a "Survey of the Public Schools of Walker County, Tex.," was made by the United States Bureau of Education. It made special study of the academic education and professional training of the teachers, their certificates and tenure of position; salaries; grades taught; school grounds; buildings and equipment; water, toilets, lighting; length of term. A summary of the main findings appeared in the "Texas School Journal," March, 1918, (pp. 13-15).

Missouri.—A Sanitary Survey of the Rural Schools of Northeast Missouri," by Prof. Willis J. Bray, was published in "The Rural School Messenger," November, 1917 (pp. 47-80). The data in this report were obtained by the tabulation of the answers to more than 100,000 questions.

These answers were from representative rural schools in each of the 28 counties in this section of Missouri. These questions called for a simple statement of fact and not, with one single exception, for an expression of opinion. The answers obtained can be relied upon as an exact statement of facts in almost every case.

The scope of inquiry included school grounds, school buildings, and schoolrooms, health conditions of children, dental inspection, adenoids, eye defects, hearing, malnutrition, speech defects, water supply, heating of schoolrooms, disposal of dust and dirt, infectious diseases, and disposal of sewage. "The data when received were tabulated by counties, and the totals under each item obtained by adding corresponding items from all the counties."

New York.—The "Report of the Survey of Public Education in Nassau County, N. Y.," conducted in 1916, has been published as a University of the State of New York bulletin, No. 652, December 1, 1917 (287 pp., 112 tables, and 16 figures). It comprises two parts, the first of which is the report of the survey conducted by L. S. Hawkins, of the New York State department of education, and George D. Strayer, of Teachers' College, with the assistance of M. R. Trabue, who had charge of the direction of the field work and the compilation and report of the findings. The second part includes the report of the survey conducted by A. C. Monahan, J. C.

Muerman, Katherine M. Cook, and Belvia E. Cuzzort, representing the United States Bureau of Education. The first part devotes its attention largely but not exclusively to the five towns or superintendent districts; the second part to "practically all the farming territory in the county and all the small villages." The survey reveals extraordinary conditions, which are to be understood in light of the fact that the plan of school administration was "inaugurated over a hundred years ago" and has been essentially outgrown. Accordingly the survey suggests the basic need of a single county organization. In the attempt to measure school conditions and achievements of pupils use is made of more recently established forms of measurement. The school plant is estimated by means of Strayer's score card for city school buildings. About one-fourth of the report (pp. 146-217 and pp. 279-287) is given to the measurement of the achievements of pupils, including English composition (Hillegas), reading scale alpha (Thorndike), completion test, language scales C and L (Trabue), arithmetic (Woody, Courtis, series B, Stone's reasoning), penmanship (Thorndike), and spelling (Ayres). In accounting for the low achievements in fundamental subjects the survey believes that the causes "are not probably to be found in any lack of mental ability or willingness to work on the part of teachers or supervisors. The blame must be put, not on individuals, but on an old worn-out system of school administration and supervision." The inquiry into the achievements of pupils led to the development of the "Nassau County Supplement to the Hillegas Scale for Measuring the Quality of English Compositions" (pp. 160-162).

By means of this scale, which is somewhat more easily used by teachers than the Hillegas scale, teachers may check up with one another two or three times each year and know how their pupils compare with pupils of the same grade and age in neighboring schools. The county supervisors recommended by this report will be able, by means of this scale, to make comparisons between schools in the county and between the Nassau County school system and other school systems wherever it seems necessary. The median results obtained by using this supplement are exactly comparable to the median results obtained by using the Hillegas scale itself.

"TOWN" SURVEYS.

Connecticut.—In order to improve local school conditions and to better the administration of public education, the State board of education of Connecticut instituted in 1916 an "educational inquiry" in the several "towns" of the State which were under State supervision and received State grants. The surveys of the schools were

made by agents of the board of education, by personal inspections, aided, where possible, by the cooperation of school committees, superintendents, and citizens. The published reports of these inquiries include the following: "Glastonbury, 1916," by N. Searle Light (pp. 37, Connecticut Bulletin 29); "Seymour, 1916," by N. S. Light and E. W. Ireland (pp. 26, Bulletin 30); "North Stonington, May, 1916," by G. C. Swift (pp. 29, Bulletin 32); "East Windsor, May, 1916," by N. S. Light (pp. 34, Bulletin 45); "New Hartford, 1916," by E. Ward Ireland (pp. 33, Bulletin 30, Series 1917-18); "Kent, 1916-17," by E. Ward Ireland (pp. 33, Bulletin 56, Series 1917-18).

The scope of these inquiries usually included: The early history of the town and the beginnings of school activity; location, topography, and resources; the town's finances and school revenues and expenditures; population analysis; the school population, attendance, classification, and progress of pupils; school buildings, equipment, and grounds; teachers; instruction, observed or tested; administration and supervision. The conditions varying in these towns, a uniform scheme of inspection and testing could not be applied. Conditions were reported as found. "A system of control which makes possible a janitor's striking and cursing the superintendent of schools in the presence of pupils is abominable. And this incident on a day of visitation by the writer has not been the only occurrence of a similar nature" (Glastonbury). The indifference of the school committee to school conditions, and a failure during four months to secure a public meeting or conference led to the adoption of the novel plan of sending within one month a series of seven postals to the voters of the town setting forth the main findings in the form of questions. "The people were entitled to the facts" (East Windsor). Tests of the results of instruction were devised in arithmetic, language, spelling, geography (location), and history (dates) and given in Seymour, New Hartford, and Kent, the results being exhibited in the appendices.

CITY SURVEYS.

Boston, Mass.—The greatly increased cost of public education in Boston has led to two surveys of the city's school system. The main features of the first survey, 1911, were stated in the report of the Commissioner of Education (Chap. XXIV, Vol. I, 1914, pp. 521-523). In 1915 the finance commission was requested by the mayor of the city to investigate the great increase in school expenses. "With the appropriation of \$5,000 in hand, the finance commission decided to supplement the report of 1911 with an investigation by an educational expert." This inquiry extended from October 1, 1915, to January 22, 1916, the results appearing in the "Report of a Study of Certain Phases of the Public School System of Boston, Mass., made

under the auspices of the Boston Finance Commission," City of Boston, Document 87, 1916 (219 pp., 9 chapters, 16 tables, 12 diagrams). A second document, "Report on the Boston School Department with Especial Emphasis on the need for a Reorganization of its Central Administrative System" (66 pp.), contains a review of the report of the survey committee (pp. 6-49), and a review of the assistant superintendents' "reply" (pp. 50-61).

The personnel of the survey committee, with their special topics of study, included James H. Van Sickle, director of the study and chairman of the committee; George D. Strayer, administrative offices and supervision districts; Lewis H. Carris and Egbert E. MacNary, prevocational and vocational features of the schools; Edwin Hebden, vocational needs of Boston children; Leonard P. Ayres, the construction of school buildings; Earle Clark, general study of costs; Don C. Bliss, the organization of supervision and the work of special classes; Henry S. West, the high school situation. "Though the director holds himself individually responsible for each and every part of what is here presented the report represents the combined judgment of all who participated in the study."

The report does not present itself as "a complete survey" of the schools of the city, inasmuch as the scope of the study was restricted to those phases of the system "having to do chiefly with organization and costs," specified as follows: Cost of administration of the school system, with the various duties of the administrative officers; the organization of high and grammar school districts and the arrangement of duties of principals; the proper number of pupils to a teacher; the lengthening of the school year; the elimination of extra pay to teachers for service in vacation schools; the shortening of the common school course from eight to seven years; the value of the new schools and studies established since 1911; method of paying salaries to teachers; whether or not the system of furnishing additional school accommodations is being carefully and economically planned. The director observes that a complete survey would include many additional topics, among which are:

1. The relation of the courses of study to individual differences existing among children and to modern social demands.
2. The quality of teaching.
3. The achievements of pupils.
4. The adequacy of present provision for physical welfare of children, prevocational and vocational training, special classes, playgrounds.
5. The possibility of improving the present system of recording and reporting school facts, including the consideration of the question of clerks in elementary and in high schools.
6. An industrial-commercial survey.
7. The classification of children in the school system, including a study of retardation, elimination, and progress of children, together with a consideration of promotion rates, failures by studies, and the like.

8. A study of the distribution of expenditures among the several units of the school system for the sake of discovering any further possibility of saving without a decrease in the efficiency of the school system.

9. An investigation of the adequacy of the present school plant, with special reference to the effect of such accommodations or equipment upon the health and achievement of school children.

10. An inquiry concerning teachers, including the recruiting of the corps, their salaries, tenure, improvement in service, and the like.

11. A study of the present efficiency of general and special supervision, with particular reference to the contribution made by the supervisory corps to the growth and development of teachers.

12. The care of school buildings, including the qualifications, compensation, and control of janitors.

13. Apparatus and materials for the purposes of training and instruction (textbooks, laboratories, workshops, libraries, schoolroom decorations, etc.).

14. The legal basis of the school system. The relation of the school department to other departments of the city government and to the State legislature.

The discussions and findings of the study are presented in nine chapters dealing with the reorganization of the administration of schools; reorganization of district supervision; the high-school situation; special departments, including practice and training, promotion and research, physical welfare, industrial arts and household arts, evening and voluntary continuation schools, community centers, music, and kindergartens; vocational education; vocational needs of Boston children; expenditures for school purposes in Boston compared with expenditures in (22) other large American cities; the construction of school buildings; subsidiary matters. Among the recommendations which, in the summary, fill nine pages (pp. 6-14), the following may be mentioned: Reorganizing the administration so as to secure a responsible executive head, who should be superintendent of schools; a more adequate plan of supervision by redistricting the areas and taking account of the relationship between the number of pupils in average daily attendance and the number of masters employed; the general organization of junior high schools so as to extend their advantages to all parts of the city and at the same time reduce school costs; the 15 special departments should be regrouped into 10; the prevocational departments should be reorganized as a part of the junior high schools; while Boston ranks second among the 21 cities in expenditure per inhabitant for operation and maintenance of schools, the expenditure per unit of wealth is relatively low; the city's plan of erecting school buildings through the agency of an independent schoolhouse commission has not been successful from the standpoint of cost.

San Francisco, Cal.—The detailed character of the study of the school system of San Francisco is unmistakably indicated by the 23 pages (pp. 621-644) required to present the brief digest of the important recommendations which are made in connection with the dis-

cussion of the several topics taken into consideration. The presuppositions which serve as a preamble to this summary could well serve as the foreword to the survey of every public-school system in order to bring together school officials, citizens, and surveyors upon a common platform from which to view with like-mindedness all findings and recommendations.

On January 3, 1916, the Commissioner of Education undertook the organization of the survey which had been proposed as early as December, 1914, by representatives of the San Francisco Chamber of Commerce, and with which the San Francisco board of education co-operated. The Bureau of Education furnished the services of five specialists and the board of education seven members of the commission, who were nominated by the Bureau of Education from a list approved by the board of education. The commission, as finally made up, and the topics to which each member was assigned, are as follows: William T. Bawden, director of field work for the survey commission, manual training, vocational education; Henrietta W. Calvin, home economics; Fletcher B. Dresslar, school architecture, sanitation, buildings, and equipment; Arthur W. Dunn, civic education; John L. Randall, school and home gardening; Frederick E. Farrington, education for immigrants; William M. Davidson, organization, administration; financial and fiscal problems; Charles A. McMurry, elementary schools, courses of study, methods of teaching; John W. Withers, elementary schools, courses of study, methods of teaching; J. Stanley Brown, secondary education; Henry Turner Bailey, fine arts; Will Earhart, music.

The amount of time spent in the field included the month of February by eight members and the month of August, after the opening of the new school year, by four members, aggregating a total of 347 days in San Francisco. Every elementary school, every high school, and 16 evening schools were visited. One hundred and thirty-nine conferences were held with groups of teachers and principals. The expense of the survey was estimated at \$8,500. The report is contained in "The Public School System of San Francisco, Cal. A Report to the San Francisco Board of Education of a Survey made under the Direction of the United States Commissioner of Education," Bulletin, 1917, No. 46 (644 pp., 221 tables, 76 figures).

The scope of the survey is readily seen from the following topics, to each of which a separate chapter is devoted: The city of San Francisco; a statistical study of the school system; organization and administration; the finances of the school; school buildings and grounds; the elementary schools; tests of the achievements of pupils; the high schools; civic education; music in the public schools; instruction in art; home economics education; manual training; vocational education; education of the immigrant; educational and eco-

nomic value of school-directed gardening. A striking feature of this **survey** is the new and special subjects which are included, indicative of conditions which are peculiar to the western section of the United States, particularly on the Pacific Coast. The ninth, tenth, fifteenth, and sixteenth topics touch upon these specific conditions.

The tests of the achievements of pupils were made in the subjects of penmanship, spelling, reading, and arithmetic, the preparation of the report on the results in each, respectively, being made under the direction of Frank N. Freeman, L. D. Coffman, N. L. Garrison, and Carter Alexander. So far as form is concerned, the writing of the children was found to be good; in spelling the city as a whole ranks considerably above the standard average for a large number of cities; in arithmetic, the children made an unusually good showing in speed, but not in accuracy, and did not evidence the usual increase in this quality with progress through the grades. Instruction in reading stands in need of standardization so as to insure grade to grade progress and greater uniformity in school situations, and thus to facilitate transfer and promotion of students. The intensive study of the 13 and 14 year old pupils in 11 elementary schools, selected at random and prepared under the direction of F. J. Kelly, in the interests of the development of a program for vocational education, indicates a new mode of attack upon the problems in this field.

Grand Rapids, Mich.—One of the most searching studies of a school system, that has yet been made, is to be found in the report of the "School Survey of Grand Rapids, Mich., 1916" (506 pp., 17 chapters, 112 tables, 94 diagrams). The survey was originally planned by the board of education to study the efficiency of instruction. As the results of the study of the instructional problems were obtained, it became apparent that this system was securing a distinctive type of results which doubtless involved high cost, and, accordingly, the scope was extended to include a comparative study of the costs.

The following, including Charles H. Judd, comprised the survey staff and the topics to which they were assigned:

Charles S. Berry, special classes; John F. Bobbitt, elementary school curriculum and school buildings; George S. Counts, arithmetic; John B. Cragun, music; Calvin O. Davis, high schools; John H. Francis, junior high schools; Frank N. Freeman, writing; William S. Gray, reading; Benjamin F. Pittenger, statistical material (in part) on teachers and promotions; Harold O. Rugg, school finances; and Matthew H. Willing, English composition.

Dr. Judd organized the staff, edited the results, and contributed the portions of the report not otherwise indicated above.

The report comprises the following topics in chapter order: The teachers; nonpromotions and failures in the elementary schools; introduction to tests; reading; composition; arithmetic; penmanship; music; instruction in the elementary schools; introduction to high-school report; secondary schools; special classes of the public schools of Grand Rapids; buildings and equipment; the cost of public education in Grand Rapids; the business management of the public schools; administrative organization. The final chapter presents a summary of the entire report (pp. 484-506).

In addition to the results secured in the application of the standard tests which were used to discover the ability of children in each of the school subjects studied, the survey is conspicuous by reason of its specification of the functions of supervision in the development of instruction. Detailed analyses of grade progress in the several subjects are so presented as to indicate both to principals of buildings and to supervisors how the checking up of the results of teaching can be carried forward diagnostically both in particular buildings and in particular grades.

The report in general shows that there is a very satisfactory condition of progress in the Grand Rapids school system. Instruction is of a high order, and the results are relatively superior. The detailed recommendations, which have been outlined in this summary, and are presented in full in the report, would make for an improvement of a school system already well organized and carrying on its work in a very adequate fashion.

Special mention may be made of the use of a new composition scale which is derived from material gathered in a similar test in Denver, Colo. It is interesting to note that, as in the San Francisco survey, music is made a subject of study in the Grand Rapids survey. A new type of foreign language courses is suggested for the junior high school. Emphasis is placed upon the recommendation that advanced courses in the senior high school should be given a "practical or functioning trend." The extended analysis of the data relating to high-school teachers sets a new degree of attainment in survey methods. The discussion of the study of the problem of the cost is clarified by the preliminary definition of the 10 different terms used in this report. Grand Rapids is compared with 18 cities in the items of expense.

St. Louis, Mo.—One of the largest and most carefully planned public-school surveys which has been conducted during the biennium is that of the public schools of St. Louis. This survey "was organized by the board of education for the purpose of securing a definite body of facts on which to base its financial policy and with which to persuade the citizens of St. Louis of the wisdom of this policy," and was conducted "primarily to aid in the passage of a bond issue of

\$3,000,000." The survey was authorized by the board of education on May 11, 1916. The survey of instruction was, accordingly, undertaken and completed during the closing weeks of the school year 1915-16. The final reports of the different sections of the survey were filed with the board in August and September, 1916. The cost of the survey was \$9,780.06, exclusive of the printing of the reports. The survey was published December, 1917.

The organization of the work of the survey included: (1) General organization of school system; (2) records, observations, and tests of schools, elementary schools, including nonpromotions and promotions, observations of instruction, the course of study, reading, arithmetic, and handwriting, special schools, and high schools; (3) administration: supervisory organization, including music, drawing, and physical education; divisions of administration, including attendance department, department of hygiene, and appointment of teachers and teacher training; (4) building: construction, hygiene, use of buildings for classes; (5) finance.

The respective assignments of the members of the staff to the above topics are indicated in the following list of the reports, which, for purposes of publication, were grouped in seven volumes.

Vol. I.	Part 1. General statement.....	Charles H. Judd.
	• Part 2. Administration and organization.....	H. C. Morrison.
	Part 3. Appointment of teachers and teacher training.....	Charles H. Judd.
Vol. II.	Part 1. Nonpromotions and two-quarter promotions in the elementary schools.....	Charles H. Judd.
	Part 2. Observations of elementary school instruc- tion.....	George A. Mirick.
	Part 3. The curriculum situation.....	J. F. Bobbitt.
	Part 4. Reading.....	William S. Gray.
	Part 5. Arithmetic.....	Charles H. Judd.
	Part 6. Handwriting.....	Frank N. Freeman.
	Part 7. Special schools.....	Walter F. Dearborn.
Vol. III.	High schools.....	A. B. Meredith.
Vol. IV.	Finances.....	H. O. Rugg.
	Part 1. Public school costs in St. Louis.	
	Part 2. The business management of the public schools.	
Vol. V.	Part 1. Construction of school buildings.....	W. R. McCornack.
	Part 2. Hygiene of school buildings.....	F. B. Dresslar.
	Part 3. The use of elementary and high-school classrooms.....	S. O. Hartwell.
Vol. VI.	Part 1. Music.....	J. Beach Cragun.
	Part 2. Drawing.....	F. H. Daniels.
	Part 3. Physical education.....	George W. Ehler.
	(Volume VI is not published, and it is expected will not be.)	
Vol. VII.	Part 1. Child accounting and attendance.....	H. C. Morrison.
	Part 2. Medical inspection.....	E. A. Peterson.

The splendid record which the St. Louis schools had been making through a long period of years gives reason for special interest and satisfaction in the results of this survey. One of our leading school systems thus has its enviable record confirmed when brought to the test of present scientific standards of measurement. The scope of the inquiry is readily gathered from the extended general statement of the findings and recommendations in Volume I (pp. 5-46).

Perhaps the most distinctive and valuable point emphasized in the St. Louis survey is the close connection between the erection of school buildings and the educational policy of a system stated in terms of the course of study and teaching activity. This identification of interests appears again and again in the course of the report and is summarized in the following statement of the director:

The fact is that a school building is in a very important sense of the word a concrete embodiment of the whole school policy. When one thinks of a school building, therefore, he must think of it in terms of the plans which the school administration has for the use of this building. For example, if a school building contains a gymnasium and a swimming pool, it is perfectly evident that the administrative officers who put the gymnasium and the swimming pool into the building contemplate using it as a part of the regular educational equipment. They will by their policy of construction be called upon immediately to provide the time and instruction necessary to use this material equipment. The moment they begin to try to provide time for the use of the swimming pool, they will raise a number of questions with regard to the relative importance of swimming as contrasted with arithmetic and reading. The swimming pool, therefore, comes to be a part of every consideration of the course of study. What has been said with regard to the swimming pool could be said with regard to all of the other characteristics of the building.

The school system becomes aware of lack of proper building equipments long before the citizens in general become aware of the fact that the course of study and the general policy of the school system are being invaded. It is inevitable, of course, if there is a lack of funds, that the school organization will ultimately be cramped because of this inability to enlarge the work of the schools. But the ordinary citizen is not likely to realize that the lack of funds means a reduction in the richness of the course of study and a deterioration of instruction.

Gary, Ind.—The advancement of educational science and the promotion of administrative practices in controlling the school experiences of children, as reflected in opinion, on one hand, and, as known by deliberate comparative judgments and exact measurements, on the other, have shared in a rare good fortune during the biennium. No experiment in public education in the United States has more quickly or widely influenced the formulation of opinions, and likewise carried conviction within an increasing group of official minds elsewhere than the undertakings and apparent novelties at Gary, Ind. The impression made upon many a visitor by its demonstrations of what can be done for children, if not what children can do for themselves, under the study-play-work program led to efforts

to reproduce its obvious features more or less formally in other systems. Indeed, so plainly had some of its leading issues involved been controverted that it was impossible to poll citizens by the question: Are you in favor of "garyizing" our schools?

In view of what "Gary" had become in American public education the most important survey of the biennium is that of its schools. The value of the survey as an instrument for the measurement and the interpretation of educational progress has had no more fortunate opportunity for revelation than in this study. The comparative merits of the traditional methods as over against the surveying methods of estimating the basic worth of contributions to both administrative and instructional experiments may now be exhibited by the critical student more accurately than ever before. Our educational enlightenment has been exceptionally advanced by the report of the study of the Gary schools which was undertaken in 1917 by the General Education Board at the request of the board of education and the city superintendent of Gary. The report, "The Gary Public Schools," New York, 1918 (over 1300 pages), comprises seven parts "dealing with the more characteristic or important aspects of school work at Gary," preceded by a general volume, "The Gary School: A General Account," which summarizes the separate reports and presents "a comprehensive view of the entire situation:"

Part 1. A General Account. Abraham Flexner and Frank P. Bachman.

Part 2. Organization and Administration. George D. Strayer and Frank P. Bachman.

Part 3. Costs, school year, 1915-1916. Frank P. Bachman and Ralph Bowman.

Part 4. Industrial work. Charles R. Richards.

Part 5. Household arts. Eva W. White.

Part 6. Physical training and play. Lee F. Hanmer.

Part 7. Science teaching. Otis W. Caldwell.

Part 8. Measurement of classroom products. Stuart A. Courtis.¹

The scope of the survey is more clearly indicated by the special topics considered. In addition to the summarizing by chapters of the several separate parts the general volume presents data and interpretations on: Gary, its industries and its people; course of study; teaching staff; classroom instruction (judged by observations extending over four months and based on a total of 228 recitations in the eight grades and the high school); auditorium and religious instruction; enrollment, attendance, and pupil progress; and conclusion. The special topics of the other parts are:

Part 2. Present-day problems; program; plant; organization; use of plant; supervision and administration; comparative cost.

¹ The publication of the report did not begin until December, 1918. The successive parts cost, respectively, 25 cents, 15 cents, 25 cents, 25 cents, 10 cents, 10 cents, 10 cents, and 30 cents, and will be sent on receipt of the amount specified, by the General Education Board, 61 Broadway, New York City.

Part 3. Accounting methods; current cost of entire system; current cost of regular day schools; current cost of larger day schools; current cost of the school shops; capital outlay for grounds, buildings, and equipment; fixed charges; financing the system.

Part 4. Shop work in Gary schools; shops and tests (machine, forge, foundry, printing) in Emerson School; shops and tests (printing, woodworking, sheet metal, plumbing, painting, shoe) in Froebel School; shop work in Jefferson School; drawing and handwork; forms and records; summary and conclusions.

Part 5. Aim of household arts work; cooking, time schedule and enrollment; the cafeteria; staff and instruction; tests; merits and defects; sewing, time schedule and enrollment; equipment, staff and instruction; tests; merits and defects.

Part 6. Place of physical training and play; facilities; teaching staff; instruction; tests and results; merits and defects.

Part 7. Science teaching as a part of a modern curriculum; science teaching in the Gary schools (general plan, time allotment); daily teaching schedules and composition of classes; nature study and garden work in primary grades; staff and instruction in nature study; botany and gardening; zoology; physics; chemistry; tests; pupil helpers in science work; conclusion.

Part 8. Introduction; tests and testing conditions; handwriting; spelling; arithmetic; composition; reading (the presentation of the general results of each of the five subjects tested is followed by a critical discussion); factors affecting performance; conclusions.

The several authors received special assistance in various phases of their work from Frank L. Shaw, Edith Holman, Anna C. Thornblum, Trevor Arnett, Frederick Cleveland, Frank E. Spaulding, Anna M. Cooley, Shattuck O. Hartwell, Frank W. Ballou, Paul H. Hanus, Leonard P. Ayres, Edward L. Thorndike, Charles H. Judd, William S. Gray, and groups of assistants, some of whom were especially trained to do specific tasks with unquestioned accuracy. Each part of the report is amplified with numerous tables, charts, illustrations, and special appendices, some of which are richly supplied with samples of the evidences supporting the conclusions. Taken as a whole, the Gary study is probably the most analytic educational survey yet accomplished. By reason of the ample resources available for, and the freedom enjoyed in, the undertaking, it was possible to increase the number of aids and devices used, to vary the approaches to the study of particular phases, and to cross section at different angles the processes and the results characteristic at Gary.

In marked contrast with the usual survey, which addresses itself to the task of finding the secret of "a local situation," the results of the Gary survey, in a peculiar sense, necessarily become vital for all educational interests, especially in the United States. The evaluations discovered are direct contributions, derived from the ascertainable results of an experiment on a large scale. "While Gary would hardly have been selected deliberately as the fittest place for a considerable experiment in public education, nevertheless, from one point of view, perhaps no place could have been chosen where there

were fewer obstacles and where conditions were more favorable to innovation." That the schools are feeling the impetus of experimentation is indicated by the "complication" of various detailed features which tends to baffle analysis and evaluation in light of long-established practices, and also by this observation: "There has been a distinct process of development, at times such rapid and unstable development, that our account will in some respects be obsolete before it is printed."

Gary is credited with having "adopted the progressive, modern conception of school function, formulated its conception in clear terms, and with all possible expedition provided facilities adequate to the conception." Its experimentation in utilizing its plant by all the children has resulted in its distinctive contribution to school organization. "Gary has attempted to practice democratic theory in school conduct and discipline." Over against these achievements it is found that the execution of the plan is "defective" both in respect to administration and supervision, that in the fundamental necessities of education, the "old line" branches, the achievement falls short of usual performances, and, in respect to the expansion of the curriculum by the addition of scientific materials, community work, and physical education, etc., "that mere practical occupation is not alone broadly educative." While it is found to be difficult to measure accurately by cost computations, because "the town buys different opportunities under different conditions," it is concluded that the advantages offered "probably cost less than the same advantages on a more conventional plan of school organization."

The most distinctive feature of the survey is its persistent effort to establish its conclusions on the basis of objective evidence. Wherever possible standard and provisional tests were made, including fundamental subjects, science teaching, industrial work, household arts, and physical education. Indeed, in view of the exceptional monographic treatment of the measurements of classroom products, the survey may be regarded as a testing of the tests. The more marked developments at Gary and of the survey use of tests are almost coeval, and there is accordingly a fitting timeliness in this effort to make "a critical study of the results secured," and thus arrive at their true value in the interpretation of specific educational processes.

Standard tests in five of the common subjects were given in the four larger schools and included elementary and high-school grades. The subjects are handwriting, spelling, arithmetic, English composition, and reading. Handwriting was tested by three methods: The Cleveland free choice, Courtis dictation, and specimens obtained from the composition tests. The Ayres scale was used in finding the quality. Spelling was measured by the Ayres scale, the material

being collected in three ways: The Cleveland survey lists of disconnected words, sentence dictation at a definite rate, and the spellings in the composition papers. In arithmetic, use was made of the Courtis Series B test in fundamentals and of the multiplication and fraction tests of the Cleveland survey. Narration was the only form of English composition measured, the test given followed the plan in the Denver survey, the quality being rated by the Hillegas scale and the papers scored for different sorts of errors. Oral reading was tested by Gray's scale, and silent reading by a reading-and-reproduction test, by the Kansas Silent Reading test, and by the Trabue language scales B, C, D, and E. The total number of tests, including repetition, was 55. The total number of papers scored and tabulated was 69,282. Unusual care was exercised in securing control of the conditions under which the tests were given. Duplicating the scoring of papers and checking by the examiners were precautions taken to secure accurate data, in addition to the special training given, as in English composition and reading, to the scorers for the task of scoring the papers. The general conclusion derived from the measurements is—

That the product of classroom teaching of the fundamentals listed above is poor in quality and inadequate in amount; it approximates in character the product of the poorer conventional schools, and reveals in no particular the slightest indication that it has been affected either favorably or unfavorably by the enriched curriculum, or other special features of the Gary schools.

The results do not mean at all that the movement for the socialization of school work is wrong, that the new type of organization is injurious, and that a modernized program is a failure.

* * * When the investigation was undertaken, it was expected that decisive results would be secured, it must now be emphasized again and again that the effects of the newer ideals of education have not been measured, because at Gary these ideals are operating under such conditions that they play little or no part in determining the product of classroom teaching.

The Gary survey, accordingly, brings us to the point where one must question, whether or not, vital experimentation outruns the range of "standardized" tests? Must these be revised, or even entirely reconstructed in order to keep up with the modern socialized school? Must measurement forsake "the fundamentals" and pursue "the newer ideals of education" in order to preserve the integrity of the science of education?

Harrisburg, Pa.—"The Plain Truth About the High School Situation in Harrisburg" (24 pp.) is another instance which shows how completely the building project of a school system involves the education which it undertakes to give to its children. This document contains (pp. 10-24) the report of James H. Van Sickle who was invited by the special high-school committee to examine the problems presented by the high-school situation. His conclusions

and recommendations were based upon a week's observation in the city and transmitted to the chairman of the committee, August 1, 1916. In presenting the three alternate plans which the city could adopt, the report gives a special review of the arguments for the junior high school as a part of a city plan of organization. At the general election on November 7, 1916, the sum of \$1,250,000 was voted for the use of the school district in making proper high-school provisions.

Framingham, Mass.—The impossibility of the local authorities and citizens reaching a satisfactory solution of the problem which involved a needed school building in 1914 led the school committee of the town of Framingham to invite James H. Van Sickle, George D. Strayer, and Ernest C. Moore, as a special committee, to study the situation and to report on the building needs of the town. This report is published in the 1916 "Report of the Board of School Committee and of the Superintendent of Schools" as Appendix A (pp. 42-73). Several methods of analysis were used for determining the building situation, such as the growth of the schools, and the indicated future needs of the town, including the Strayer score card for city school buildings, increase in population in school attendance, the retardation and elimination of pupils, the inadequacy of the present plant, the availability of land, the industries into which children may be expected to go, and transportation facilities. On this basis a building program is recommended.

Brookline, Mass.—On April 23, 1917, the report of an "Educational Survey of the Public Schools of Brookline, Mass." (436 pp., with numerous tables and charts), was presented to the school committee of Brookline, which authorized the inquiry on June 5, 1916. The survey staff included James H. Van Sickle, director of the survey; Henry S. West, Harlan Updegraff, George D. Strayer, Egbert E. MacNary, May Ayres, Bertha M. McConkey, James H. McCurdy, Wilbur F. Gordy, and Edwin A. Shaw. The method of the survey, which included observations on the ground, distributed over a period of six months, during which different members of the staff were present at different times, enabled the director "to gain the necessary insight into the complex problems involved which would enable him to present a unified report" for which he assumes full responsibility. The scope of the survey is clearly indicated from the topics to which the chapters are devoted: The Brookline community; the school system; school finances; school buildings and equipment, elementary schools, high school, practical arts and manual training buildings, public gymnasium, summary of existing conditions and plans for the future; the school population; provisions for safeguarding health; the kindergartens; the common branches,

with tests in arithmetic, spelling, penmanship, reading, and composition; the special branches; grades eight and nine; the high school; the school of practical arts; a demonstration school for Brookline. A summary of conclusions is presented on pages 5-26.

The most interesting suggestion growing out of this detailed study of this wealthy suburb, which "has been a pioneer in nearly all phases of education which are agitating the public mind to-day," is the recommendation that the school committee establish and maintain a demonstration school for Brookline:

As a result of an educational survey, something of a practical nature should follow not only in the matter of buildings, organization, and general directions as to educational policy, but in addition something that would afford a continuous opportunity to test and demonstrate the best things capable of being done in the town of Brookline itself.

Other cities, Detroit and Boston, for instance, and a number of smaller cities have established departments of reference and research which deal extensively with the particular school system as a whole. A demonstration school would deal intensively with a problem under controlled conditions. The results in Boston and Detroit are published, and to a certain extent Brookline can share the benefit of their findings. But this is not enough. There are certain problems that Detroit's efficiency office and Boston's efficiency office can not solve for Brookline. These problems must be solved by Brookline and in Brookline. There are other problems which no school system has yet undertaken to solve. Here lies Brookline's opportunity, not only to benefit her own schools, but, through publication of results to make a unique contribution to the cause of public education. Her wealth and her standing among progressive American communities lead one to expect from her some noteworthy contribution to the general welfare.

Richmond, Ind.—Attention has been given to the place of the kindergarten in a number of surveys of city schools, but the first kindergarten survey, as such, is reported in the "Survey of the Kindergartens of Richmond, Ind.," by Alice Temple, issued as Supplementary Educational Monographs (Vol. I, No. 6, September, 1917, the University of Chicago Press, 54 pp.). The material for the study of the eight kindergartens of this city was gathered during visits made on nine days in January and February (1917!), which included also all the first-primary grades. Written material by the kindergarten and first-primary teachers, special conferences with teachers, information from the office, and the course of study planned in 1912 supplied additional data for developing the treatment and reaching the conclusions in the five chapters: The kindergartens; room equipment; the teachers; the relation between the kindergarten and the first grade; curriculum and methods of the kindergarten, including subject matter and methods, manual activities, language and literature, physical activities, and music.

St. Paul, Minn.—The elaborate study of the St. Paul "situation," authorized by an ordinance of the city council on May 23, 1916,

amended February 16, 1917, and conducted during the months of January and February, 1917, will afford an opportunity to compare, in part, the fortunes of public education under the recently devised "commission" form of city government with its progress under the form thus displaced.

The four major issues upon which a report was desired included: (1) The situation with respect to the school plant, together with a program for the development of adequate school accommodations; (2) a study of the needs of St. Paul for vocational education and a program for the establishment of this type; (3) a study of the work done in the classroom with particular reference to the development of more efficient teaching and a more satisfactory curriculum; and (4) a consideration of the administration of public education.

The survey commission included George D. Strayer, chairman, Lotus D. Coffman, and Charles A. Prosser, each of whom directed one of the three sections of the study as organized. The "Report of a Survey of the School System of St. Paul, Minn." (pp. 962, 141 tables, 9 figures, 2 charts) comprises: Part I, The Administrative Problem (pp. 5-210, 55 tables); Part II, The Instructional Problem (pp. 211-660, 52 tables, 6 figures); Part III, The Vocational Problem (pp. 661-832, 2 charts); and appendix (pp. 833-962, 34 tables, 3 figures). The editing of the report and the delay in publication suffered from a variety of circumstances, including war services of some of the surveyors. Part I, containing the general administration and school building survey, was prepared by George D. Strayer and N. L. Engelhardt, and treats of the administration of the schools, school attendance and census, conservation of health, the cooperation of the public library with the schools, buildings and equipment, and cost of school maintenance. The adequacy of the city's school plant was measured by the Strayer score card for school buildings. "Three or more competent judges recorded their ratings on each building," "visited by one man at a time so as to permit of an unbiased, unhampered recording of the conditions actually found to exist in the building." The report of Part I was submitted on April 15, 1917, and contained a recommendation of a building program for five years to come, involving a bond issue of \$3,000,000 which was voted by the taxpayers in June, 1917. A measure of the city's financial abilities was secured by comparing educational costs with 24 other northern and western cities with populations ranging from 125,000 to 400,000.

The political control of a city school system under the commission form of government is noted by the survey committee, which places itself on record as favoring the control of public education by a board of from five to seven members elected at large, one each year for either five or seven year terms of office at a special school election. This board, within certain limitations, to be determined by the charter, should have the power to levy taxes and be responsible for the expenditure of all moneys raised for educational

purposes. The board should, subject to the limitations commonly imposed with respect to the limitation of debt and, upon the vote of the people, have the power to issue bonds for the erection of school buildings. The board should be responsible for the erection of such buildings.

Part II, which deals with instruction and the course of study, and the appendix, presenting data concerning the classification and progress of school pupils, constitute over five-ninths of the entire report. This part was prepared under the direction of Lotus D. Coffman, assisted by the specialists indicated in the list of its topics: Instruction and the course of study; instruction in the first four grades, by Flora J. Cook; instruction in the upper four grades, by Lida L. Tall, Ernest Horn, and L. D. Coffman; measurement of children's achievements, by M. E. Haggerty and M. R. Trabue, assisted by C. L. Harlan, H. N. Fitch, E. Laury, and J. Boraas; the course of study, by Ernest J. Horn, Lida L. Tall, and L. D. Coffman; the secondary school system, by A. B. Meredith. The appendix chapter on classification and progress of school pupils was prepared by Marion Rex Trabue.

The instructional problem was studied by means of data collected in course of the application of six, in part, novel methods of securing information: By direct observation of recitations; by the children's own work, secured through a paper written (or drawn, with colored crayon, by nonwriting first-graders) on the topic "How I Have Fun"; by teachers describing in writing the most satisfactory lesson or lessons, and the points therein considered good, they had given during the first half-year; by the written criticisms and discussions of teachers after observing a model lesson by one of their number (e. g., a lesson in reading by a fourth-grade teacher) in response to five specific questions; by the examination of data furnished by supervisors, principals, and teachers; and, by standardized tests given the pupils. The study of the four upper grades did not include the children's essays and the teachers' written description of lessons. A distinctive contribution is made, among the group of suggestions offered for the improvement of instruction, in the form of plans for making a course of study for the schools and for the reconstruction of the syllabus of the course of study. It is believed that such work will definitely improve the classroom teaching, which should be the aim of all who cooperate in this labor. "The problem of the course of study is to determine what specific items of subject matter are to be taught. The syllabus attempts to assure that such subject matter will be taught and with the greatest efficiency."

Over one-fourth—or 27.8 per cent, to be exact—of the report is given to the results of the extended measurement of the achievement of children in reading, spelling, handwriting, arithmetic, grammar, composition, and language. Twelve tests were distributed between

January 26 and February 21, so as to measure all grades from the first to the fourth year high school and "practically every child in the city" by one or more of the standard tests and scales. In order to make the measurements representative of city conditions, a unique plan of securing six rankings of all the schools on six different points was adopted, and four different groups, "from the poorest to the best," were arranged, from each of which two or more buildings were selected in all tests. As a check on the accuracy of the measurements, test data were secured in each instance, excepting reading in the elementary and the high schools and in grammar, from two groups of schools—those in which the tests were given by the members of the survey staff and those in which the tests were given by the teachers of the classes they were teaching under specific directions. Tabulations were made for the two groups separately and later the results compared and combined.

The following measures were used: Spelling, Ayres; arithmetic, Woody (addition, subtraction, multiplication, division); handwriting, Ayres (three-slat scale, 1912); primary reading, Haggerty (sight and phonetic scales); reading in intermediate and grammar grades, Thorndike's scale, alpha 2, and Haggerty, visual vocabulary; grammar, Buckingham (to eighth grades); language, Trabue (language scales B, C, D, and E in elementary schools and L and M in high schools); composition, Nassau County supplement of the Hillegas scale (elementary and high schools). Computations were made so as to render these midyear tests comparable with the test norms determined at various times in the school year. In order to test the reading abilities of high-school pupils a new scale was devised, involving "an understanding-of-sentence test." It consisted of nine paragraphs selected from seven different writers, of varying degrees of difficulty, each paragraph calling for written answers to five specific questions. While this test proved to be suggestive, it "was found somewhat too difficult." The overlapping of the grades and the variations among schools are shown in detail. The recommendations include a specification of the supervisory values of test results, a suggestion of the device of reclassifying pupils according to specific grade abilities for brief, intensive drill in various subjects until they are brought up to grade, and the establishment of a bureau of educational research.

Part III, The Vocational Problem, was prepared by C. A. Prosser with the assistance of W. H. Henderson, Mrs. Lucinda Prince, Josephine T. Berry, Mr. Gsell, an advisory committee on vocational education consisting of 20 citizens, and several organizations. The study extended from February 6 to April 15, 1917, and was made at the total expense of \$2,000. The topics discussed include: Why

vocational education for St. Paul; for what vocations should St. Paul give training; how far do the vocations train their own workers, and how far do the St. Paul schools meet the need for vocational training; recommendations as to training needed; recommendations as to types of school; and, vocational and prevocational training for girls and young women. The appendix details short-unit vocational courses for men and for women. The limits of the published report excluded four special studies which were filed for public examination in the office of the city commissioner of education.

Portland, Oreg.—One or two attempts have been made to estimate the accomplishments in school systems directly traceable to earlier surveys. It has occasionally happened that the publication of the report of a given survey has been delayed so long as to permit the announcement of the adoption of a few of the recommendations growing out of the study. The "Report of Supplementary Survey of Portland Public Schools," by P. W. Horn, April, 1917 (64 pp.), is especially interesting as an estimate of the results of a previous survey. This investigation was made "in behalf of the chamber of commerce and the city school board jointly" in the month of April, the investigator spending two and one-half weeks in visiting schools, inspecting the work during school hours, examining written work prepared by pupils, and interviewing "a large number of people who had views to express in regard to the schools." These inquiries were to make a rapid survey of the Portland public schools with special reference to their advance or retrogression since the survey of 1913, which was conducted by Dr. Cubberley and a considerable staff of assistants. This resurvey finds that progress has been made by the Portland schools in 48 different particulars. In two respects a backward step has been taken. Twelve of the original recommendations which have not yet been put into effect should be acted upon favorably. Only three of the original recommendations it probably would not be wise to carry out. Eighteen recommendations are reaffirmed or added in line with the original recommendations. It is found that "the greatest obstacles in the way of the Portland Schools to-day are distrust, the impossibility of building up a better teaching corps under present legislation, and the probability of limiting the school tax levy to 6 mills on the dollar, when at present 6.8 mills is needed."

Bloomington, Ind.—The literature of educational surveys has been permanently enriched by the publication of "A Survey of a Public School System," by Henry Lester Smith. (Teachers' College, Columbia University Contributions to Education, No. 82, 1917, 304 pp., 153 tables, 16 figures.) This survey was undertaken "with the two-fold view of determining and remedying conditions" by using so far as possible the local resources within a school system and of the State

university in its midst, to which were added a small amount of outside supervision and direction. It accordingly stands as essentially a cooperative survey. The entire period covered by the study is six years, with most of the work having been done in the years 1912-13 and 1913-14, during the last of which assistance was given by George D. Strayer. At different times various tests were given, respectively, by Clifford W. Stone, E. E. Jones, S. A. Courtis, and H. G. Childs. Theses for the degree of master of arts in Indiana University were prepared by eight graduate students who worked on practical school problems in the city, and portions of five of these studies are incorporated in this publication. As to the practical educational value of an "autosurvey," the author's experience warrants him "in predicting a survey undertaken by the teaching corps as a whole will soon reveal to the superintendent that some of the accomplishments of principals, buildings as a whole, or individual teachers will surpass even his own dream of what could be accomplished."

The scope of the study is readily seen from the list of topics which are treated: The community and the plan of its public school survey; normal progress, retardation, and acceleration; census, enrollment, promotions, failures, withdrawals, repetitions; finances; the course of study; achievement of pupils; teachers; supervision of instruction; school buildings; general conclusions and recommendations; criticisms of Bloomington school survey; and value of a survey similar to that made of Bloomington. In view of the dynamic character of an educational system and the length of time during which this study was in progress, a large amount of the material represents the accumulation of readjustments which the school authorities and teaching staff were enabled to put into practice in the succeeding years. This enrichment of school life was made possible through the more intelligent direction and supervision resulting from the progress of the protracted studies.

Over one-third of the volume is given to the study of the achievement of pupils as measured by standard tests, withdrawals and failures, and correlation of rank in various subjects. The tests given in arithmetic include the Indianapolis, Stone, Courtis, Haggerty and Smith. The handwriting was measured by the Thorndike and Ayres scales. Spelling was tested by the Buckingham, Rice, and Courtis lists. Composition and reading were measured by the Courtis tests in English composition and rates of reading. Drawing was tested by the Thorndike drawing scale. Bloomington will share in the benefits of the State-wide application of the Thorndike visual vocabulary test and understanding of sentences test which were given in a large number of Indiana towns.

In attempting to evaluate the results of self-examinations by a small school system, the author concludes thus:

Above everything else, a survey of the Bloomington type results in riveting ultimately the surveyor's attention on individual pupils and their performances and away from the mass performance. The result is that individual needs become more quickly evident and consequently more quickly ministered to.

Akron, Ohio.—When the educational committee of the Chamber of Commerce of Akron, Ohio, was organized in December, 1916, it attempted to foster the widespread interest in public-school affairs by making—

so complete a study of the school system as to make possible a community program of education. * * * We had in mind what is best for the young people of Akron at the present time, and what the line of growth of the educational system should be, in order that each succeeding group of children be properly educated to fit into its life in this city.

Horace L. Brittain, director of the bureau of municipal research, Toronto, Canada, was invited to conduct the survey. He was assisted by Thomas L. Hinckley, of his bureau, and received the cordial cooperation of the local authorities and school staff. On July 10, 1917, he presented his "Report on the Schools of Akron, Made for the Educational Committee of the Akron Chamber of Commerce." (234 pp., 37 tables, numerous graphs and photographs.)

The three main topics included in the study are the raising and administration of school funds, the physical plant and equipment, and what the school revenue buys for the boys and girls of Akron. The consideration of the first topic presents general financial facts, financial methods, and business administration. The observation of the physical plant and equipment includes sites and buildings, ventilation and heating, lighting, cloakrooms, seating, cleaning of rooms, and a school building policy for Akron. The answer to the third topic led to an inquiry as to what is taught in the public schools; how the subjects of the course of study are taught in the elementary schools; instruction in the high schools; educational administration and supervision of instruction; educational records and reports; promotion of school children; retardation and overage; elimination of children; the exceptional child; medical inspection and open-window rooms in the schools; the academic and professional training of teachers, their working day, their pay, and length of service; and the mutual relations of the school and the community. The group of 47 findings and recommendations is presented in brief (pp. 21-35). The educational committee resummarizes the results of the study on pages 5 to 12 for the benefit of the citizens, to the end that the benefits accrue to the school system as early as possible.

Elyria, Ohio.—The radical character of the changes effecting the economic interests and the composition of the population recently

appearing in some of our smaller cities, and the consequent bearing upon educational problems are well illustrated in the report of the "Educational Survey of Elyria, Ohio," made under the direction of the United States Commissioner of Education (Bulletin, 1918, No. 15, pp. 300, numerous tables and figures). The survey was financed by the chamber of commerce and received the cooperative support of the school officers and teachers. The field work was under the direction of W. S. Deffenbaugh, with whom was associated seven other members of the Bureau of Education and five persons from outside. Each phase of the school system and its activities studied was assigned to a specialist. A total of 94 distinctive recommendations grew out of the conclusions reached in the study of the following special topics: Administration and supervision; school buildings, high school; instruction in primary grades; instruction in intermediate and grammar grades; civic education; home economics; and vocational education.

Measurements of the results of teaching were made by use of Haggerty's test for reading vocabulary, the Cleveland survey word lists selected from Ayres's spelling scale, Thorndike's scale for quality of penmanship, Woody's (Series B) and Stone's scales in arithmetic. A novel feature in the study of instruction in the primary grades is the analysis of "the out-of-school activities" of children in these four grades. The tabulation (pp. 138-139) of these experiences under home work, home games, vacation activities, and books read, furnishes useful guidance for correlation with the usual school room activities. The occupational analysis of the high school population and the vocational study of the 13 to 15 year old pupils in the elementary grades show a suggestive extension of methods appropriate to the study of vocational problems.

Janesville, Wis.—Upon the invitation of the board of education of Janesville, a city of about 14,000 population, a survey was undertaken by the Wisconsin State department of education. This study offered an opportunity "to present in organized form for the schools of Wisconsin the views of the State department on city school administration." The survey was organized under the general direction of C. P. Cary, the active direction of the field work and the preparation of the report being in charge of W. W. Theisen, who was assisted by H. L. Terry, B. R. Buckingham, H. N. Goddard, Amy Bronsky, Maybell G. Bush, Annie Reynolds, J. M. Dorrans, Janet R. Rankin, O. S. Rice, A. B. Cook, P. W. Dykema, Lucy D. Hale, Cecile W. Flemming, Benjamin P. James, Edgar F. Riley, Frank J. Lowth, and students in several normal schools who assisted in giving and scoring the tests in various school subjects. The report, "An Educational Survey of Janesville, Wis.," issued by

C. P. Cary, Madison, Wis., 1918 (329 pp), does not include all the material presented to the board of education in connection with the findings and recommendations. The published report is organized so as to present, first, the problems of administration, including the problem of high-school organization, the building problem, teachers and salaries, financing the school system, the board of education, census, enrollment, and attendance; and, second, the problems of instruction, including the problem of industrial education, classroom instruction in elementary schools, high-school instruction, special courses and instruction in special subjects, library work, time allotments and course of study, measuring results in school subjects, supervision of instruction, progress and classification of pupils, provisions for special classes, home cooperation, health and recreation. The measurement of results in school subjects include: The Woody, Courtis, and Stone reasoning tests in arithmetic; the Kansas silent-reading test in reading; the Ayres and Buckingham tests in spelling; the Thorndike and Ayres scales in handwriting; the Hillegas, Thorndike, and Trabue scales in grading the composition papers, and the Trabue language completion tests B and C.

Columbia, S. C.—An interesting geographical extension of the survey movement was made when the board of school commissioners of Columbia, S. C., requested the United States Commissioner of Education to undertake the direction of a study of its public schools. This is the southeasternmost city of the Union to seek the benefits of a comparison of its educational activity with that of other cities. The report, "The Public Schools of Columbia, S. C.," Bulletin, 1918, No. 28 (192 pp., with numerous tables and figures), is a notable example of the sympathetic and constructive type of educational surveys. In presenting the 23 general recommendations growing out of its labors, the committee assigned to the task "has not undertaken in arbitrary fashion to tell Columbia what her school system should be nor how near the ideal in accomplishment she is nor how far away from it. This committee is not competent to define the ideal school system nor the ideal school practice. It can, however, bring to Columbia's attention those practices which are held by other communities, for the present, at least, to be the best." There is offered, accordingly, "a constructive program, the inauguration of which should properly extend over a period of years." "In justice to the superintendent of schools, the fact should be mentioned that from time to time in his annual reports to the board of school commissioners he has suggested many of the things which this committee recommends."

The characteristic qualities of the survey appear even in the headings of the six chapters of the report, most of which are phrased in

the form of suggestive problems and arguments. The city of Columbia and the rise of the public-school systems; are the schools of Columbia adequately supported? insufficient maintenance means meager salaries for school employees; insufficient maintenance limits the activities attempted; insufficient maintenance has rendered the supervision inadequate; the holding power of the system compares favorably with that of other systems. Some aspects of instruction and supervision were studied by means of standard tests in spelling (Ayers) and in arithmetic (Courtis, fundamentals, and Stone, reasonings). The data record interesting and important contrasts between the white and the colored pupils. The survey was made in 1917 by the committee designated by the Commissioner of Education, including four specialists of the bureau, F. F. Bunker, director; Henrietta W. Calvin, J. L. Randall, and H. H. Baish, and Supt. C. B. Gibson, of Savannah, Ga.

Winston-Salem, N. C.—"A Study of the Winston-Salem Schools," by L. A. Williams and J. H. Johnston, 1918 (93 pp.), is a larger outgrowth of the work of the home-county study clubs at the University of North Carolina which led the authorities of Winston-Salem and Forsyth County to desire an extended survey of their schools. The educational study of the schools of Winston-Salem, contained in this volume, is a part of the study of the larger system of the social and economic conditions of Forsyth County and of the industrial situation of the city. The visitation of the schools was made in February, 1917, the superintendent, principals, and teachers cooperating in every way possible. The topics of the report include: Historical; organization; the school plant; the pupils; the teaching staff and supervisory officers; and finances. The summary of the study concludes by saying:

The superintendent knows that all these difficulties exist. He has repeatedly called attention to them. He needs more money and a larger force with which to handle the problem. That many of these conditions now obtain is the fault not of the school officials but of a too small banking account for the schools.

It is planned to have this study continued by making an examination of the teaching results of the schools.

Alton, Ill.—"A survey's finding is not worth much that could be carried out at once; it furnishes rather a goal toward which we can strive, an ideal that we can pursue." With this expression of its belief in the constructive character of a school survey, the special committee presented on April 29, 1918, to the board of education, city of Alton, Ill., the 29 "necessary and feasible recommendations as obtained from the survey" which had been made during the school year, 1917-18, under the direction of Supt. John W. Withers

("Findings and Recommendations of the Survey of the Alton Public Schools," pp. 88, numerous tables and figures). The cordial reception of the report is indicated by the accompanying record of favorable action upon 10 of these recommendations within less than a month thereafter.

The survey staff comprised eight assistant superintendents and other school officers of the St. Louis schools, each of whom prepared the reports on the following topics, respectively: Organization, administration, and supervision; teachers; spirit; methods of teaching; relations of teachers and other school officers, relations of teachers and children; course of study and school supplies; testing of the results of teaching in the elementary schools; the high school; the progress of children through the grades; and finances. One-third of the report is occupied with the results of the tests employed in six subjects: Arithmetic (Courtis, series B, and No. 8, series A), reading (Starch), spelling (Ayres), written English (specially devised to trace the "growth of sentence sense"), handwriting (Thorndike), and geography (devised by Reavis and Branon, as a completion test for the measurement of minimum geographic knowledge of elementary-school children).

Mount Holly, N. J.—The study of this small school system comprising a staff of 40 teachers and 1,110 pupils, conducted under the direction of the State commissioner of education, is marked by a particular interest in the problems of supervision and teaching. "The lack of a body of significant school records, of a comparative sort and covering a period of years, dealing" with a variety of problems such as "would be asked by a board of education and used by a supervising officer in a continuous self-survey of a system of schools, would seem to indicate a failure on the part of the school officials to fully appreciate the importance of such knowledge as an aid to increased efficiency, and for the information of the public." The observational part of the survey, made in February and in May, 1918, was conducted by A. B. Meredith and Z. E. Scott, of the State department of education. The application of standard tests was made by Profs. C. H. Elliott and C. S. Crow, of the department of education of the State University of New Jersey, the account of which constitutes three-fourths of the report, "Survey of the School System of Mount Holly, N. J., Northampton Township" (80 pp., with numerous tables and figures). The tests used were: English composition, in the grades and the high school (Nassau County scale); handwriting (Thorndike); spelling (Ayres and Buckingham); reading (Thorndike, Alpha 2); arithmetic (Courtis, series B, and Stone, reasoning); algebra, in first year high school (Holtz); and Latin, four years of high school (Henmon). The report closes with 29

recommendations, and a list of the equipment of a biological laboratory for a high school class of 12 pupils.

Des Moines, Iowa.—The applicability of survey methods to specific problems of a particular part of a school system is interestingly illustrated in the "Survey of the High Schools of Des Moines," by Ervin E. Lewis (University of Iowa Extension Bulletin, 1918, No. 37, pp. 64, with tables, figures, and map). The problems considered in this survey are stated as follows:

1. Are new high schools or additions to present buildings needed? If so, how many? Where? When?
2. Are different kinds of high schools needed? Should Des Moines continue its present policy of cosmopolitan high schools, or should special kinds of schools, such as commercial, technical, or trade be established?
3. Are junior or six-year high schools needed?
4. What should be Des Moines' policy with reference to vocational secondary education during the next decade?

The recommendations offered in answer to these questions are based on the results of a careful analysis of the historical development of high schools in the city and a comparison of Des Moines with 25 other cities of its size. A clearer perspective is gained by the concentration of those factors involved in the specific problems. The survey was authorized by the board of directors, sanctioned by the chamber of commerce, and directed by E. E. Lewis, with whom was associated a committee of the extension division and the college of education of the State university, as well as assistants.

Muscatine, Iowa.—The extent to which the problem of a building program, featured in several recent surveys, can be carried further into a stock taking of all the school plant of a small city is illustrated in the "Survey of the School Buildings of Muscatine," by E. J. Ashbaugh (University of Iowa Extension Bulletin, 1918, No. 41, pp. 38, 14 figs.). By means of Strayer's score card for school buildings, the seven large grade buildings, as well as the high-school building, were scored in January, 1918, by two members of the survey staff. It was found that the conditions of buildings and grounds were 22 per cent "good," 21 per cent "fair," and 57 per cent "bad." The findings are graphically detailed for the benefit of community interest and culminate in a group of recommendations "which will take years to complete."

Paterson, N. J.—An illustration of the progress made in the co-operation of the departments of education in higher institutions is found in the survey of the public schools of Paterson, N. J., which was made in the spring of 1918 by the staff and students of the department of educational administration of teachers college. The direction and guidance of the survey were by George D. Strayer,

N. L. Engelhardt, F. W. Hart, and E. S. Evenden. The details were marked out in the practicum in educational administration at the college. Four major studies were undertaken: The ability of Paterson to pay for educational advantages; the school building plant; the achievement of pupils in the elementary schools; the teaching staff and quality of instruction. The material on the last topic is not included in the report which appears in the "Annual Report of the Board of Education of Paterson, N. J., for the year ending June 30, 1918," (pp. 99-290).

The data for the measurement of the achievement of the pupils were gathered between March 14 and April 10, and are accepted as being comparable with the results of other surveys. The subjects measured and the tests given were composition (Nassau County supplement), handwriting (Thorndike), spelling (Ayres), arithmetic (Woody, Stone reasoning, Courtis fundamentals), language (Trabue), and reading (Thorndike, alpha 2). The tests were so arranged that every grade and every child in the regular elementary schools was represented in one or more of the subjects.

City school reports.—The biennium under review has witnessed an interesting addition to the literature of educational surveys in the form of the reports of boards of education and superintendents of schools. The following are a group of reports which illustrate the spread of the survey method and its utilization in creating a more intelligent public who support and patronize the schools:

"A Review of the Rockford (Ill.) Public Schools, 1915-16," by Supt. R. G. Jones (126 pp., 58 tables, 53 charts), contains information which was—

collected and organized by the staff in the schools and submitted to the board of education by the superintendent of schools. Its purpose is to carry to the homes of this city information concerning the physical property, the curriculum, the teaching staff, the attendance, some measurable results in teaching, and other matters which may interest.

This detailed and forceful presentation of the schools was put forth with the hope of making "every citizen of this city better acquainted with an institution in which he is a stockholder." Tests of the achievements of pupils were made in penmanship, arithmetic, spelling, composition, and reading.

The "Report of the Superintendent of Schools, 1916-17" of Huron, S. Dak., by Supt. F. L. Whitney (86 pp., 35 tables, 39 charts), "attempts to give those more directly concerned a somewhat detailed idea of the present conditions obtaining in their public schools and to let them know what the schools are attempting to do." The material is arranged under these topics: Organization and administration; physical environment; teaching force; pupil accounting; quality of instruction; pupil achievement; and school costs. Tests

of pupil achievement were made in first grade vocabulary, spelling; arithmetic, handwriting, reading, composition, and algebra.

The first printed "Report of the Board of Education, 1912-1918," of Rochester, Minn., by Supt. H. A. Johnson (208 pp.), shows how the survey movement has found lodgment in this rapidly growing community.

In these days schools are surveyed, tested, and measured; but so many times this is done hurriedly and by outsiders. In many cases the results can not help but lack in thoroughness. For the past five years our schools have been constantly surveyed by the superintendent, working in a spirit of cooperation with his teachers.

The effort to secure a definite measurement of the efficiency of their schools led the superintendent to act upon the suggestions contained in the circular of the Bureau of Education, City-School Circular, 1915-16, No. 21, offering "some suggestive points for superintendents in the smaller cities who are surveying their own schools." The material accumulated (pp. 31-141) includes tests in reading, errors in English, grammar, and punctuation, arithmetic, spelling, age-grade, retardation, and acceleration, promotion, etc. Mr. W. F. Miller, of the University of Minnesota, cooperated in giving the tests from which were derived the "cause and effect and analogies tests."

This report we hope will be studied by every school patron into whose hands it may fall. It answers many questions which have been asked again and again. The tabulations will be thrown on a screen at teachers' and parents' meetings, so that every parent may learn their significance.

Supt. H. O. Dietrich, of Kane, Pa., is utilizing a novel monographic method of reporting the results of self-surveys in the schools of this city. The board of education of Kane has issued the following series of documents: (1) Estimates or positivism. Which? April, 1917 (15 pp.), reporting tests in spelling, handwriting, and arithmetic; (2) Child Accounting for the Schools of Kane, Pa., June, 1917 (8 pp., 7 tables); (3) The Child. Where is He? October, 1917. (8 pp.); (4) Education in Dollars and Cents, March, 1918 (16 pp.); (5) Does it Pay? April, 1918 (15 pp.), containing 15 exhibits from publications of the Bureau of Education; (6) Suggestions for Teachers, June, 1918 (24 pp.), dealing with the course of study. In 1916 he published "An Evidence, the Curwensville Schools" (23 pp.), which was a report modeled on these lines.

Supt. Ernest C. Witham, in the "School Report of the Town of Southington, Conn.," in 1916, summarized the progress of the four previous years, offered a program for the future, and informed his constituency on such matters as retardation and results of tests in English composition, writing, arithmetic, spelling, and improvement of teachers while in service. In his report for 1917, with an increase in graphic and tabular presentations, he again exhibits the quality

of instruction in the schools in arithmetic, English composition, spelling, handwriting, algebra, and shows the holding power of the high school.

"The Mirror; As We See Ourselves" (28 pp.), was issued by Supt. Frederick S. Camp as a partial "autosurvey" for the period, September, 1916, to February, 1918, as a report on the work of the supervisor of tests and standards of the public schools of Stamford, Conn. It includes an eighth grade study, grade progress table, time allotment, distribution of marks in eighth grade and high schools, graphic exhibit of school buildings and premises, results of tests in handwriting and eighth grade composition, and a report of the first year's work of the supervisor of tests and standards.

VOCATIONAL EDUCATION SURVEYS.

Vocational education, as a specific problem as well as an element in school situations, has received attention during the biennium in both special and general surveys. The passage of the Smith-Hughes Act by Congress in February, 1917, brought to a Nation-wide conclusion the first definite formative developments of the vocational type of education, and fixed the program for its extension.

The original edition of the report of the Minneapolis Survey for Vocational Education, published on January 1, 1916,¹ being soon exhausted, has been thoroughly revised and issued as "the finished result of the survey" under the title of "Vocational Education Survey of Minneapolis, Minn.," made by the National Society for the Promotion of Industrial Education, by the United States Bureau of Labor Statistics, 1917, Bulletin, Whole No. 199, Vocational Education Series, No. 1 (pp. 582, 25 chapters, 4 appendices, 20 tables, 3 charts).

Indiana.—Four of the surveys for vocational education growing out of the vocational education law passed in February, 1913, by the Indiana Legislature, have appeared within the biennium. This series of surveys is unique in that it attempts, under State authority joined with local cooperation, to provide a State-wide program built up out of the results of surveys of well-selected communities. The State board of education, in accordance with the provision of the act, organized a vocational division, placed in charge of W. F. Book, deputy superintendent, with whom later were associated A. M. Smith, special agent in charge of agricultural education, Adelaide S. Baylor, special agent to supervise domestic science, and Charles H. Winslow, special agent for vocational research. The underlying purpose of all these surveys was—

to ascertain from a study of the industries of a particular community the facts that would be needed to outline an efficient and economic program of

¹ See Report of the Commissioner of Education for the year ended June 30, 1916, Vol. I, pp. 166-167.

vocational training for that community, and to ascertain from a study of the public, private, and parochial schools of the community how far the vocational needs of that community were already being met by existing agencies. The ultimate purpose was to suggest a definite program for organizing and developing vocational education in the particular city or district covered by the survey—

and thus "some definite help might also be obtained for solving the problem of providing an efficient scheme of vocational training for the State as a whole."

The "Report of the Richmond, Ind., Survey for Vocational Education," December 1, 1916 (586 pp., 41 tables, 51 illustrations), was conducted cooperatively by the State board of education, the board of education of Richmond, and Indiana University, assisted by an extensive local survey committee of 51 members under the direction of Robert J. Leonard, of the university. The field work extended from February 1 to May 15, 1916. Occupational information concerning the forms of industrial, commercial, and household employment, juvenile employment, and home and school gardening is collected in detail, and the present provisions of the schools to meet these needs are set forth. Part IV presents the methods of the survey and the forms and schedules used in making type studies.

The "Report of the Evansville, Ind., Survey for Vocational Education," January 1, 1917, by Charles H. Winslow (510 pp., 65 tables, 4 charts), with the assistance of a local survey committee of 12 members and the cooperation of 23 organizations, was prepared in response to the invitation of the Evansville board of education to the State board of education "to make a survey of the city of Evansville, looking toward the establishment of a day vocational school," \$2,800 being appropriated for the work. The occupational analyses present the situation in furniture and woodworking industries, building trades, cigar factories, dressmaking, flour mills, garment making, gas engine manufacturing, hospitals and nurses, laundries, machinist trade, plow manufacturing, potteries, printing, railroad shop, retail stores, stove manufacturing, vehicle manufacturing, gardening, and general agriculture. The resources of the schools and libraries for vocational purposes are included. Special attention is called in Part VIII to the vocational needs of colored people.

The "Report of the Jefferson County Survey for Vocational Education," January 1, 1917 (86 pp.), was made by a survey committee of 18 members, including State and local representatives, under the direction of W. F. Book, and contains the material of the survey conducted during the months of June to December, 1916. This study followed four main interests, which are represented in the organization of the report, as follows:

- (1) The economic situation, setting forth important facts pertaining to the location, history, and industries of the county, the character and extent of

land and other property with which the farmer has to work; (2) the status of husbandry in the county; (3) financial resources of the county and agencies for rural betterment; (4) the status and work of the public schools of the county.

The "Report of the Indianapolis, Ind., Survey for Vocational Education," January 1, 1917 (Vol. I, 400 pp., 31 tables, 4 charts), was prepared by Charles H. Winslow, who was aided by a State survey committee of 28 members and 23 cooperative agencies in the city. One-half of the fund of \$7,000 for the expense of the survey was contributed by the State board of education and one-half by the Indiana board of school commissioners. The field work was begun on July 5, 1916. The Indianapolis survey, where possible, is differentiated from the other surveys chiefly in emphasis—

by the effort to present process analyses by industries, to summarize the results of the survey in analysis charts of occupations, to consummate trade agreements, and to regard the conditions of employment and the vocational needs of boys and girls 14 to 16 years of age, and of those who have passed the age of compulsory school attendance.

The following tables of agreement were entered into: A two-year part-time agreement for instruction in salesmanship, by four firms; a continuation school agreement for instruction in salesmanship, by four firms; agreement for a two-year day course in woodworking, by 16 employers; a three-year compulsory evening continuation school agreement for plumber's apprentices, by 60 employers; agreement for a two-year day course in sheet-metal work; and for a one-year part-time course for girls who wish to become telephone operators is pending.

Wilmington, Del.—"Industrial Education in Wilmington, Delaware" (Bulletin, 1918, No. 25, pp. 102, 57 tables) is the report of a survey made by Fred C. Whitcomb under the direction of the Commissioner of Education. It forms "a part of a comprehensive constructive educational survey of the State of Delaware," undertaken by the Bureau of Education in cooperation with the Delaware Educational Cooperation Association. The purpose of the effort was to correlate the results of a study of the schools, of the industries, and of the provisions for industrial education in both schools and industries, into a constructive program. The field work was accomplished during the period from November, 1915, to January, 1916, use being made of the six forms, reproduced in the appendix. The study is characterized by the special attention given to the 13 or 14 year old pupils, in accordance with the approach made to the problem of vocational education found in recent surveys.

After stating the local features of education and employment legislation affecting minors, the report presents its material under the following topics: A study of certain groups of public school pupils;

a study of the industries; young people in the industries; educational needs of workers, and present educational opportunities; suggestions for a program of industrial education.

Fort Dodge, Iowa.—In "The Boy and the School, a Partial Survey of the Public Schools of Fort Dodge, Iowa," August 15, 1917 (19 pp., Bulletin 32, engineering extension department, Iowa State College of Agriculture), Edward T. Snively undertakes to discover in this typical town, located in an agricultural community—

the chief reasons why so many boys leave the schools of our city before completing the course; in what grades the greatest number of boys drop out; what they do after leaving school; what their earning capacity is; and what readjustments should be made in our present courses of study to make them meet, even more fully than they are now doing, the needs of our boys and of the community.

The data studied include enrollment of boys in the sixth and seventh grades, in the autumn of 1909 in order to see what had happened to them educationally and vocationally by the time of the study, which was made in February, 1916.

Commercial education surveys.—That a survey should "present a program for development" is illustrated in the studies made of commercial education in Missouri (1916) and in New Mexico (1917). "They had their origin in the rush of the commercial teachers of each State to inaugurate a constructive and comprehensive program of State-wide standardization of commercial education" and were authorized by the commercial departments of the State teachers' associations. A summary of the methods, scope, and findings of the studies is contained in the "Signified Results of Missouri and New Mexico Commercial Education Surveys," by Paul S. Lomax, School Review, February, 1918 (pp. 73-84), who served as the chairman of the committee for each State. Questionnaire data were collected and summarized under these topics: Qualifications of commercial teachers; equipment of commercial departments; business curriculum; courses of study; educational measurements.

HIGHER EDUCATIONAL INSTITUTIONS.

North Dakota.—On August 4, 1915, the newly created North Dakota board of regents invited the Commissioner of Education to assist the board in making a survey of the State educational institutions as required by a recently enacted law. The survey commission, selected jointly by the commissioner and the board, included William T. Bawden, Edwin B. Craighead, and Lotus D. Coffman. The field work was begun November 1, 1915. Approximately 100 days were spent in the field studying the State institutions, including the university, the agricultural college, and the State normal school at Valley City. The final preparation of the report in June, 1916, undertook to handle the

findings and recommendations so as to realize the desire of the board for "a comprehensive, constructive report, looking toward the future development of a sound, progressive State policy for higher education rather than a mere critical analysis of any defects that might be found to exist."

"State Higher Educational Institutions of North Dakota, a Report to the North Dakota State Board of Regents of a Survey made under the Direction of the United States Commissioner of Education," Bulletin, 1916, No. 27 (202 pp., 56 tables, 26 figures), presents the report under the following topics: The State of North Dakota; brief outline of educational needs, as indicated by character and resources of the State; the University of North Dakota; the North Dakota Agricultural College; function of the university and agricultural college; department of education at the university and the agricultural college; the State normal schools; the State school of forestry and the State school of science; the State library commission; statistical comparisons; comparison of courses and classes at the university and the agricultural college, and summary of recommendations. This survey is an addition to those which have more recently been emphasizing the need of proper correlation along functional lines. In considering the arrangements for instruction, attention is called to the contrary effects of the "vertical" and the "horizontal" spread in classes and courses: North Dakota being essentially a rural and agricultural State, the determination of its educational needs are most effectively stated (p. 26). The interpretation of these needs is made clearer by the 12 presuppositions which precede (p. 170) the 40 recommendations which are made to the State board of regents.

University of Nevada.—On February 17, 1917, the Commissioner of Education presented the report of the survey of the University of Nevada conducted under his direction, as provided by the action of the Educational Survey Commission created by the legislature of 1915 of that State. The work of the survey was done by Samuel P. Capen and Edwin B. Stevens. The labors of this committee extended during the last five months of 1916. In studying the institution and preparing the material which was published as the "Report of a Survey of the University of Nevada," Bulletin, 1917, No. 19 (184 pp., 30 tables, 13 figures, 25 maps, with numerous tables in the appendix), the survey was attentive to the four basal criticisms indicating unrest in the public mind as to the operations of the institution. The institution's relation to partisan politics seemed to be "the root of all the evil." The detailed topical studies, which follow in many respects the surveys of the University of Iowa and the University of Washington, offer contributions to the field of university administration. The specific topics considered include: The University of Nevada and public sentiment; government and control of the University of

Nevada; higher education in Nevada and the factors which condition it; the University of Nevada and the public service; standards and the distribution of the student body at the University of Nevada; educational administration of the university; training and experience of the faculty; work and remuneration of the teaching staff; costs; organization and needs of separate divisions of the university. The committee finally conceives of an ideal for a university in such a State which is thus described:

In view of a small population and insistent local needs, the institution would devote itself solely to the education and service of the citizens of its own State. It would consist of but few colleges and departments. Exclusive of a college of arts and sciences designed to give facilities for liberal culture and pure scholarship to those who can take advantage of them (and the number should increase as fast as possible), it would offer technical and professional courses only in lines contributory to the major vocations of the State. It would recognize a special obligation to provide enough trained teachers to insure to the State an evenly served and effective public school system. With respect to the number of students in residence, it would be a small institution. It would, indeed, regard its small size as a peculiar privilege, enabling it to give to those who frequent it a more intimate oversight, a more intensive training than are commonly afforded in very large institutions. It would seek a national reputation for the highest excellence in those few departments which the special needs of its constituency have called into being. It would press for means to secure men and equipment to win such a reputation. It would convince the State of the essential soundness of this program, of the bigness of the opportunity thus presented. It would reinforce its appeal by making itself the State's center of inquiry and distribution for all forms of knowledge bearing on the health, the material interests, the intellectual and social welfare of the citizens.

University of Kentucky.—In January, 1917, the governor of Kentucky, acting in accordance with the resolution of the board of trustees of the University of Kentucky adopted in the preceding month, appointed an investigating committee of the board to report in the following June upon the propriety of consolidating the two colleges of engineering and the conditions involving the "discontent among the alumni and student body toward the existing administration." This committee called to its aid a survey commission comprising Thomas F. Kane and Charles M. McConn, with Kendrick C. Babcock as consulting member, two of whom spent 20 days at the university and the third visiting it at four different times. The "Report of the Survey Commission," Bulletin of the University of Kentucky, July, 1917 (pp. 7-76, with a later report for prolonged consideration of future policy, pp. 77-92), includes also the report of the investigating committee. The work of the survey commission undertook to formulate principles by which practices found current in the institution could be judged accordingly. This study is necessarily local and descriptive, using so far as possible many contributions of the surveys of the University of Iowa and the University of Washington

for comparative standards. Because of the peculiar situation involved this study is, for surveys, unusually frank and personal. Of the 69 recommendations reported to the board of trustees, all but one were unanimously adopted.

Iowa State Teachers' College.—The "Report of an Inside Survey" (Bulletin of the Iowa State Teachers' College, April, 1917, 113 pp., 12 tables, 5 maps, and views, and Supplement of the Report, by President H. H. Seerley) is the result of the "protective measure" adopted by the faculty of the Iowa State Teachers' College after the institution had "been surveyed and surveyed by legislative committees, State boards, by the National Bureau of Education, by representatives of foundations and by self-appointed individuals notably curious, honest investigation and otherwise." The "inside survey" was made by a committee of seven members of the faculty, between March 1 and June 1, 1917, with the understanding "that it must be conducted from a different standpoint and with a different purpose" than the previous attempts. A committee of three laymen was designated "to read the report in manuscript" and to satisfy themselves that the facts therein stated were true. An effort was made to follow the survey outlines projected by the committee on normal school standards and surveys of the National Council of State Normal School Presidents and Principals in 1917;¹ but, it was soon found that a report limited to the points therein designated would not adequately represent "the motives, purposes, undertakings, evaluations, expenditures, requirements, capabilities and accomplishments" of the college.

The introductory sections (pp. 5-39) were prepared by H. H. Seerley. The report presents the findings of the several subcommittees on the following eleven topics: The organization of the Iowa State Teachers' College; the curriculums offered; length of time of the several curriculums; entrance requirements; graduation requirements and numbers; special subjects; the training school; qualifications of members of the faculty; salaries, teaching hours, student hours, cost per student hour; accounting and costs; normal school costs.

Illinois colleges.—In order to "discover such facts as would enlighten the church boards of education upon the relation of the church to the colleges and inform the colleges of their relation to each other," the Council of Church Boards of Education, comprising the boards of education of 18 denominations, authorized "A statistical survey of Illinois colleges," by Warren Brown, survey secretary, March 15, 1917, Chicago, Ill. (78 pp.). The data used in the survey

¹ See Addresses and Proceedings of the National Education Association, Portland, Oreg. 1917, pp. 388-387.

were collected between September, 1916, and February, 1917, through the Chicago office of the council. Statistical and graphic representation is given of the density of population of Illinois, geographic source of students, educational source of students, religious source of students, source of students socially; the overlapping of college territories; religious instruction; attendance and retention of students; professional distribution of graduates.

Something of the complexity of the situation involving higher education in Illinois is seen from the fact that in this State there are "37 institutions in addition to the junior colleges connected with high schools competing for patronage from the graduates of the four-year high schools." The questionnaire returns from 2,543 freshmen, about two-fifths of all the liberal arts freshmen in the State, show the following interesting results as to the reasons why they select particular institutions:

	Per cent.
Educational standards of the institution.....	27.0
Location of college near home.....	23.0
Influence of other students.....	11.0
Opportunities for self-support during course.....	7.3
Influence of college alumni.....	6.8
Church connection (same denomination).....	5.6
Family or relatives connected with college.....	5.5
Religious life of institution.....	5.5
Social and athletic life of the college.....	5.1
Influence of field worker for college.....	2.5

University of Pittsburgh.—In order to secure a clearer vision of the institutional functions which the university could serve in its local community, the board of trustees of the University of Pittsburgh instituted a survey in 1915 which extended over a period of nearly two years. The wide ramifications to which this study led and the increasing complexity in which a university and its community stand mutually related led to the publication of "A New Basis for Social Progress," by William C. White and Louis J. Heath, December, 1917 (221 pp., Houghton Mifflin Co., New York). This volume is an interesting attempt to formulate principles for educational reorganization which shall bring about a more efficient co-ordination of the vocational needs of a modern community and the educational agencies within the community endeavoring to satisfy those needs. Present-day failures in education and in other human interests are traced chiefly to a lack of accurate knowledge which can come about only through continued analysis of conditions. Each community is living out a special characteristic life that needs to be studied in such a way as to show how a complete reconstruction of the entire educational system will be possible by abolishing the arbitrary lines drawn between the present branches of knowledge,

which are articulated into courses of study, and to allow for a "departmentalization" of knowledges with reference both to students' capacity and community needs. To this end, the authors propose "a municipal foundation for the study and advancement of community education," with a bureau of analysis, a bureau of statistics, and a bureau of supply. This foundation would carry on a continuous survey of community needs and community schooling, correlating the latter on a unit plan for the community. Among the general recommendations, it is proposed that such a foundation for the Pittsburgh community be placed in residence at the University of Pittsburgh.

NEGRO EDUCATION.

A monumental effort to encompass a survey involving the educational interests of about one-tenth of our population is permanently recorded in "Negro Education: A Study of the Private and Higher Schools for Colored People in the United States," prepared in co-operation with the Phelps-Stokes fund under the direction of Thomas Jesse Jones, specialist in the education of racial groups, Bureau of Education, in two volumes, 1917 (Vol. I, Bulletin, 1916, No. 38, pp. 411, 8 tables, 3 maps, 40 plates of illustrations; Vol. II, Bulletin, 1916, No. 39, 704 pp., 31 maps, 1 diagram). This important study grew from a suggestion made in November, 1912, by the trustees of the Phelps-Stokes fund, which provided most of its expense, and was conducted under the immediate direction of the Commissioner of Education. The regular staff of surveyors associated with the director included Thomas J. Woofter, Walter B. Hill, and Ocea Taylor. Special assignments were completed by William Hill, Mrs. T. J. Jones, G. S. Dickerman, Mr. and Mrs. A. H. Albertson, Ogden Purves, John H. Jinks, and Messrs. Bebbington and Higson, chartered accountants of New York. Cooperation was extended by the State superintendents of public instruction of the 15 Southern States involved, by the officers of the schools surveyed, and by the various supporting boards and agencies.

The purpose of the survey was formulated in terms of a long-felt and widespread need for accurate information that would enable one to decide "as to the merits and demerits of the many appeals for money and sympathy in behalf of all sorts and conditions of institutions for the improvement of the Negro." In realizing its original aim of recording an "evaluation of the private schools" for the education of colored people, the study makes a most important contribution towards stabilizing and protecting this necessary educational philanthropy.

The scope of the survey, accordingly, included: (1) All private schools for colored people, whether elementary or higher; (2) all

schools above the elementary grades, whether public or private. Reports are made on 790 individual schools and institutions, of which 625 are private schools, 28 State institutions, 64 public high schools, 3 city normal schools, 27 county training schools, and 43 special institutions (arranged geographically in Volume II). A "background" for the private and higher institutions was found in the public school system for Negroes. The information presented concerning each school includes: Characterization of the school; ownership and control; attendance; teachers and workers; organization; financial; plant; and recommendations. Three years were required to complete the undertaking; two, the school years of 1913-14 and 1914-15, being spent in the field work obtaining facts through personal visits to the institutions described; and one, 1915-16, to revisits and other verification of the data and the preparation of the report. A striking feature of the study is the attempt to support the qualitative evaluation by measurement. "For the purpose of this study it was found that the best available measure of public-school facilities was the relation between teachers' salaries, as given by the State superintendents, and the population 6 to 14 years of age, as reported by the United States census. Salaries * * * are the most accurately reported of all the school facts." This ratio as the per capita expenditure for white and colored children was determined for each county in the States of Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

The general discussion of the vast material collected on Negro education is presented in Volume I under these topics: General survey; public school facilities; secondary education; college and professional education; preparation of teachers; industrial education; rural education; ownership and control; educational funds and associations; financial accounts and student records; buildings and grounds by Mr. and Mrs. A. H. Albertson; history of Negro education, by George S. Dickerman; and freedmen's aid societies, 1861-1871, by Julius H. Parmelee. The appendix contains eight extensive tables of statistics of Negro schools.

Having performed its difficult task of discrimination, expressed in the constructive policy of recommendations regarding individual institutions, the study offers a large program of educational values in reorganization, in its proposal of a committee representing the various religious denominations to act wisely in the development of properly distributed and graded higher institutions, which should include two universities, three colleges, and junior colleges in 12 States for the Negro race.

FOREIGN SURVEYS.

Saskatchewan, Canada.—“A Survey of Education in the Province of Saskatchewan, Canada: A Report to the Government of the Province of Saskatchewan,” by Harold W. Foght, specialist in rural school practice, Bureau of Education, Washington, D. C., Regina, 1918 (183 pp., 8 maps, 31 figs., 32 tables, and additional tables and appendix), is a unique contribution to survey literature. Preliminary discussion as to the need for a scientific study of the educational situation in Saskatchewan to serve as a basis for needed reorganization led to an order in council on June 7, 1917, for an educational survey. “This is probably the first instance on record of a Government extending an invitation to a citizen in the employ of another country to direct the study of its school system.” The active field work was extended during three months from August to November, 1917. The director of the survey was assisted on special topics by W. Carson Ryan, jr., of the United States Bureau of Education. Cordial cooperation was extended by various provincial officials, officers, and teachers, and the public education league.

The topics presented include: Saskatchewan, the land and people; fundamental educational needs as indicated by the character and resources of the Province; the present educational system; school organization and administration; school inspection and professional supervision; school population, enrollment and attendance; organization and adaptability of the rural schools; consolidation of rural schools; rural high schools and continuation schools for adults; city, town, and village schools; high schools and collegiate institutes; the teaching staff; the normal schools; vocational education; separate schools; schools in non-English communities; the examination system; school hygiene and health inspection; school support, what the Province pays for education. The methods of inquiry included personal visits and the use of official data and records and questionnaire material. The study is doubly interesting to the student of the survey movement and educational progress because in making comparisons it utilizes the facts of education in the United States. Fifty-eight specific recommendations are made.

“Studies in Higher Education in Ireland and Wales with Suggestions for Universities and Colleges in the United States,” Bulletin, 1917, No. 15 (115 pp.), and “Studies in Higher Education in England and Scotland with Suggestions for Universities and Colleges in the United States,” Bulletin, 1917, No. 16 (276 pp., 14 tables), by George E. MacLean, are the reports of a special commission to the author by the Commissioner of Education in 1913. These studies are of special interest, made as they were during the years 1913-1915, and recording the changing situation in higher edu-

cation in England, Scotland, Ireland, and Wales. The aim of the author is "to point out facts and tendencies in higher education in England, Scotland, Ireland, and Wales, by which American universities and colleges can profit." The reports are based on visits to 76 institutions, including universities, university colleges, colleges, and technical and agricultural colleges and schools.

The topics presented in Bulletin No. 15 are: The Dublin University; Trinity College; the Catholic University; the predecessors of the National University; the National University; the three constituent colleges; the Queen's University of Belfast; the department of agriculture and technical instruction; movements preparatory for the University of Wales; the University of Wales; the royal commission and educational problems confronting it; summary of studies and suggestions.

The topics of Bulletin No. 16 are: First group of universities—Oxford, Cambridge, Durham; Scotch universities; University of London; the new or provincial university; independent university colleges—Exeter, Nottingham, Reading, Southampton; technical colleges and schools; agricultural colleges and schools; women's colleges; organization and administration of universities; university officers; provisions for the faculty; state aid and visitation; coordination of institutions; applied science and professional education; advanced study and research without graduate schools; examinations; curricula; student life; and university extension teaching.

MISCELLANEOUS.

"The Third Annual Conference on Educational Measurements," held at Indiana University, April 14, 15, 1916, Bulletin of the Extension Division, February, 1917, offers a constructive program which contributes to setting up standards for survey purposes as indicated by some of its special topics: Standard tests in the work of school administration and measurements applied to school financing, by E. P. Cubberley; survey of Gary schools and prevocational schools in New York City, by B. R. Buckingham; cost of instruction in Indiana high schools; and per cent of failures in high school, by H. G. Childs.

The "Fourth Annual Conference on Educational Measurements," held at Indiana University, April 20, 21, 1917, Bulletin of the Extension Division, April, 1917, gave further indication of the interpretation of, and benefits from, educational surveys in the addresses by G. D. Strayer: Significance and present status of the survey movement, and practical improvement in general school administration resulting from the school survey.

"Suggestive Studies of School Conditions, an Outline Study in School Problems for Women's Clubs, Parent-Teacher Associations, and Community organizations" (101 pp.), prepared by Janet R. Rankin and issued by C. P. Cary, Madison, Wis., 1916, shows some very interesting phases of school surveys at work. In its suggestions for the study of schools, it indicates by outline, bibliography, tables, and graphs, the approach by which the organizations named might consider the following topics: The school and the community; the school children; pupil health and hygiene; physical conditions; school beautification; the school library; the school-teacher; kindergarten; the lower grades, one to four; upper grades, four to eight; discipline and moral instruction; industrial work; recreation; the high school; higher educational organizations; school finances; the school exhibit. The suggestions close with an appendix on method of equipment and procedure.

The more elaborate organization of handbooks for conducting educational surveys is demonstrated in the educational survey series, Volume II, "Self-Surveys by Teacher-Training Schools," by W. H. Allen and C. G. Pearse, World Book Co., 1917 (202 pp.), and Volume III, "Self-Surveys by Colleges and Universities (with a Referendum to College and University Presidents)," by William H. Allen, World Book Co., 1917 (384 pp.). The former volume is an outgrowth of the survey of Wisconsin's eight normal schools made in 1914. "While this book speaks of normal schools, it is addressed to the whole family of teacher-trainers, including so-called normal schools, so-called county training schools, so-called high-school training classes, so-called college courses for teachers, so-called colleges of education, so-called graduate courses in education, so-called summer normal courses, so-called teachers' institutes, and in addition State departments of public instruction, State central boards of education, National Bureau of Education, and volunteer associations of educators, including foundations which deal with questions affecting normal-school ideals and methods." The topics discussed are: Reasons for self-surveys; pathfinding by Wisconsin's normal schools; steps in making a self-survey; making self-surveys build as they go; administration problems; course of study problems; supervision problems; classroom instruction, academic department; training department's training; extra-curricular activities of students; technique of reporting surveys; general needs of teacher-training schools; and exhibits.

The latter work also grew out of surveys, and while organized as "a handbook" it presents a searching discussion of survey methods that are capable of self-application by the different groups constituting a college or university. The analyses of all educational relationships are refined to the utmost and call for a yes-no type of

response. The nine main topics, the survey movement in higher education, procedure for a cooperative college survey, relation of trustees to president and faculty, executive and business efficiency, faculty government, extracurricular activities of students, course of study, instructional efficiency, and relation with college communities are analytically treated in the 122 sections. The faculty and alumni questionnaires in the University of Wisconsin survey are included in two exhibits of the appendix.

The diversification of the literature on educational survey is still further indicated in "Methods and Standards for Local School Surveys," by Supt. Don C. Bliss, D. C. Heath & Co., 1918 (pp. 264, 19 illustration charts, 153 tables, and bibliography). This manual designed for the use of a superintendent in studying his local school conditions, is the outgrowth of "constant use * * * of the reports of surveys conducted by groups of experts in different cities," and of separate investigations of educational problems. It serves the purpose of bringing into handy form "a definite chart for the would-be local surveyor." The functions of surveying in school administration are presented in the introduction by G. D. Strayer and the introductory chapter by the author. The guidance derived from the day-to-day experience of the superintendent in meeting school problems is apparent in the arrangement and treatment of the several topics: General conditions; organization and administration, the supervisory and teaching staff, salaries, pupils, efficiency of instruction; course of study and time schedule; the school as a social and community center; school buildings; school hygiene; school finance; planning for future needs. Two chapters offer assistance in the statistical interpretation and the graphical representation of data. The entire treatment culminates in a "survey outline," following the order of the topics treated. A special feature of the work is to be found in the inclusion of many of the standards and forms which have been determined for city systems which have been studied, thus facilitating the comparative use of data locally derived.

"Teacher Benefits for School Surveys," Educational Review of Reviews, No. 48 (24 pp.), was issued by the Institute of Public Service, New York City, to present the answers derived from a digest, prepared by Helen E. Purcell and Hiram H. Bice, of 30 survey reports to the following question: "What are classroom teachers getting from school surveys?"

The thirty-first annual meeting of the Association of Preparatory Schools and Colleges of the Middle States and Maryland, 1917, included the subject of educational surveys in its program, the discussions being presented by Clyde Furst and Samuel P. Capen (*Proceedings*, pp. 42-59).

"The Fruits of School Surveys," by Leonard B. Koos, School and Society, January 13, 1917, summarizes the responses of 18 out of the 25 city superintendents as to the results of the surveys conducted in their systems. Incomplete as these indications are, they "point to an emphatic justification of the survey movement and furnish encouragement for its extension."

"A Statistical Method for the Treatment of School-survey Data," by L. L. Thurstone, The School Review, May, 1917, offers technical suggestions for the graphic treatment of measurable material collected in an "auto" survey by a city school superintendent.

"College and University Surveys," by Francis A. Thomson, School and Society, June 23, 1917, discusses the surveys of single institutions and of State-systems of higher education. J. A. Manahan has prepared a select list, with comment, of State, city, and county surveys, as a bibliography appearing in the University of Virginia Record, Extension Series, November, 1916 (pp. 54-62).

"A Plea for the Educational Survey," by Lawrence A. Averill, School and Society, February 16, 1918, is based on its four "more obvious values," and the claim "that the principle behind the educational survey is a sound one."

The bulletin of the University of South Carolina, No. 66, March, 1918, contains a discussion of school surveys by S. H. Edmunds.

The analytic account of the "Standard Tests used in School Surveys," by Ernest P. Branson, School and Society, December 14, 1918, covering 24 "typical surveys of a general character," shows that the tests were used in 16, the average number of tests used increasing annually at this rate: 1913, 1; 1914, 2; 1915, 4; 1916, 5; 1917, 8. The choices of tests used favored four in reading, two in handwriting, two in spelling, three in arithmetic, and three in composition.

UNPUBLISHED SURVEYS.

The following is a list of unpublished surveys:

Falls County, Tex., conducted by the Bureau of Education, the report being made to the local officers.

Bradley Polytechnic Institute, Peoria, Ill., conducted by the Bureau of Education.

Mobile, Ala., School Survey, 1916, conducted by the Bureau of Municipal Research of New York City.

South River, N. Y., conducted in the department of educational administration, Teachers' College, Columbia University.

Everett, Wash., conducted by Fred C. Ayer, with the aid of 20 teachers and principals, and designed as a survey of "a typical northwest city of 30,000 population," and conceived "from the social rather than the individual point of view."

CHAPTER XIX.

REVIEW OF EDUCATIONAL LEGISLATION, 1917 AND 1918.

By WILLIAM R. HOOD.

Division of School Administration, Bureau of Education.

CONTENTS.—The Federal Government and education; Vocational education; Education for the disabled soldier; Mobilizing educational institutions; Training soldiers in the common-school branches; Schools on Government industrial reservations; Naval education; Enlarged activities of the Department of Labor; Other agencies; Expansion of the Bureau of Education; Council of National Defense—State legislation: General State administration; County administration and supervision; The school district; Consolidation; Public-school support; Improvement of the teaching personnel; Certification of teachers; The school term; Compulsory school attendance; Health and sanitation; High schools; Special classes for atypical children; Civic and patriotic instruction; Elimination of illiteracy and the Americanization of aliens; Community organization in schoolhouses; Textbooks; Libraries; Higher education.

Within the two years comprehended in this review the Congress of the United States has been in almost continuous session, and all the States, except Alabama, have held meetings of their legislative bodies. Six States—Georgia, Massachusetts, New Jersey, New York, Rhode Island, and South Carolina—hold annual meetings of their legislatures, and these, of course, had legislative sessions both in 1917 and in 1918. Within this period, special sessions were held in some States. Alabama is not included in this review for the reason that its legislature meets quadrennially and will not meet again until early in 1919.

The legislation of any year, particularly an odd-numbered year when 42 or 43 legislatures are in session, is invariably made up in large measure with enactments relating to education, and this is none the less true of the two years here considered. Distinctly new educational movements, however, have not been especially conspicuous in laws enacted. Progress in school legislation has partaken rather of the nature of improving older laws and moving along lines already well defined. A few elements have operated in legislatures with the probable effect of distracting attention from educational matters. The European war has been among these elements. The war and its concomitants have been uppermost in the minds of the people and in consequence have not gone without effect on State legislation. But it can hardly be said that this effect has been essentially hurtful.

On the contrary, as will appear later in this chapter, some very wholesome educational measures have received impetus from the war spirit.

THE FEDERAL GOVERNMENT AND EDUCATION.

The Government is more concerned with education than most people suppose. Of the 10 executive departments at Washington, at least 8 include bureaus or other agencies which touch education vitally at some point. Among the more noteworthy of these are the Bureau of Education and the Office of Indian Affairs of the Department of the Interior, the Public Health Service of the Department of the Treasury, the States Relations Service of the Department of Agriculture, the Children's Bureau, and the Bureau of Naturalization of the Department of Labor, and the great training branches of the War and Navy Departments. In addition to these, the Library of Congress, the Smithsonian Institution, the Council of National Defense, the Committee on Public Information, and some other agencies serve an educational purpose not only through their broader information-giving activities, but through school channels as well. The work of all of these agencies challenges our attention afresh, now that the Government is extending its educational activities along other lines.

VOCATIONAL EDUCATION.

Prior to 1917 the Government had adopted and pursued several well-defined policies with regard to education. These are seen in the consistent granting, upon the admission of each State, of lands from the public domain for the endowment of the common schools; the provision of school facilities for dependent peoples such as Indians; the encouragement of higher agricultural and technical education by the enactment of the first Morrill Act of 1862 and supplementary acts; and the maintenance of extension work, particularly in agriculture, as provided in the "Smith-Lever Act" of May 8, 1914. In 1917 another and no less important policy in education was inaugurated. This took form in the so-called "Smith-Hughes Act," granting Federal aid for vocational education.

The Smith-Hughes Act was approved by the President on February 23, 1917. It appropriates funds for the purpose of cooperating with the States in providing instruction in agricultural, trade, home economics, and industrial subjects and in preparing teachers of vocational branches of study. For the salaries of teachers, supervisors, and directors of agricultural subjects an initial appropriation of \$500,000 was made for the fiscal year ended June 30, 1918,

and an annual increment of \$250,000 is added until the fiscal year 1924, after which \$500,000 is added each year until an allowance of \$3,000,000 is reached in the fiscal year ending June 30, 1926. These sums are allotted to the States in the proportion which the number of their respective rural inhabitants bears to the total number of rural inhabitants of the United States. For the salaries of teachers of trade, home economics, and industrial subjects appropriations are made in like manner and amounts. The sums appropriated for this purpose are allotted to the States in the proportion which the number of their respective urban inhabitants bears to the total number of urban inhabitants of the United States. The third appropriation will reach \$1,000,000 in the fiscal year ending June 30, 1925, and is intended for preparing teachers, supervisors, and directors of agricultural subjects and teachers of trade, industrial, and home economics subjects. The allotment of this fund is made on the basis of total population.

The act creates a Federal Board for Vocational Education, which is composed of the Secretaries of Agriculture, Commerce, and Labor, the Commissioner of Education, and three citizens appointed by the President. Of the appointed numbers one must be a representative of manufacturing and commercial interests; one, of agriculture; and one, of labor. This board is charged with the administration of the act and may appoint such assistants as deemed necessary. An annual appropriation of \$200,000 is made to defray the cost of administration and of such investigations and special studies as the board may undertake.

In order to receive the benefits of the act any State must accept its provisions and create or designate a board to cooperate with the Federal board. It is also required that the State or local authorities therein, or both, expend an amount equal to that expended in the State by the Federal Government, and that plans be adopted for vocational education which are acceptable to the Federal board. The State treasurer must be designated by the legislature as the custodian of funds allotted under this act, and the State board must report annually to the Federal board in Washington. The latter is required annually before the 1st day of January to certify to the Secretary of the Treasury the amount to which each State is entitled and must report annually to Congress.

As showing something of the operation of this act, the following brief table is given. It indicates the amount allotted to each State for the fiscal year ending June 30, 1919.

Federal funds allotted to the several States for vocational education¹

Alabama	\$49,765.68	Nevada	\$15,000.00
Arizona	15,000.00	New Hampshire	15,000.00
Arkansas	37,874.42	New Jersey	62,776.07
California	58,021.64	New Mexico	15,000.00
Colorado	19,273.43	New York	226,343.14
Connecticut	31,245.91	North Carolina	51,191.24
Delaware	15,000.00	North Dakota	17,808.99
Florida	18,857.55	Ohio	115,622.17
Georgia	60,948.84	Oklahoma	38,655.31
Idaho	15,000.00	Oregon	16,142.18
Illinois	137,581.98	Pennsylvania	186,786.00
Indiana	64,578.82	Rhode Island	19,304.07
Iowa	52,530.24	South Carolina	36,189.30
Kansas	39,867.34	South Dakota	17,708.61
Kentucky	53,701.68	Tennessee	51,011.12
Louisiana	39,085.00	Texas	91,361.83
Maine	17,920.34	Utah	15,000.00
Maryland	31,250.08	Vermont	15,000.00
Massachusetts	86,138.70	Virginia	48,288.17
Michigan	67,539.35	Washington	27,614.44
Minnesota	49,557.88	West Virginia	29,417.16
Mississippi	42,888.92	Wisconsin	55,843.72
Missouri	78,755.04	Wyoming	15,000.00
Montana	15,000.00	Total	2,307,460.44
Nebraska	28,014.13		

EDUCATION FOR THE DISABLED SOLDIER.

Another duty imposed on the Federal Board for Vocational Education is that of providing vocational rehabilitation for persons disabled under circumstances entitling them, after discharge from the military or naval forces of the United States, to compensation under the war-risk insurance act of October 6, 1917. This duty is imposed by the so-called "Smith-Sears Act," approved June 27, 1918. Under this act the Federal board is authorized to take the disabled man when he is discharged from the hospital, or when the Army medical authorities permit, and give him training as his needs require, taking into account, of course, his personal preference and previous training and aptitudes. The training provided is designed to restore the man as far as possible to full duty again as a soldier in civilian ranks. His instruction may take the form either of further education or adjustment for his prewar vocation or of reeducation for a new vocation in life. During the period of rehabilitation he is entitled under the law to receive \$65 or more per month, according to his circumstances. Allowances for dependents are also provided. On the part of the man the training is voluntary. If, however, he fails or refuses to follow the prescribed course of rehabilita-

¹ Federal Board for Vocational Education. Second Annual Report, 1918, p. 106.

tion which he has elected to follow, the Bureau of War-Risk Insurance may, on the recommendation of the board withhold his allowance. The expenses connected with his instruction, including the cost of books and supplies, are defrayed by the Federal board. The board is given large discretion in formulating plans, prescribing courses of study and the like. The act appropriates and makes available until expended the sum of \$2,000,000 for the purpose of carrying out its provisions.

Section 6 of the above-mentioned act also provides:

That all medical and surgical work or other treatment necessary to give functional and mental restoration to disabled persons prior to their discharge from the military or naval forces of the United States shall be under the control of the War Department and the Navy Department, respectively.

It is further provided in this section that, whenever training is employed as a therapeutic measure by the War Department or Navy Department, a plan of cooperation may be established between these agencies and the Federal board acting in an advisory capacity, and that the War and Navy Departments may cooperate in a like capacity in the care of the health of the soldier or sailor after his discharge from the military or naval forces. This section thus takes legislative cognizance of the work of rehabilitation established under the direction of the Surgeon General of the Army. In the last months of the year 1917 Surg. Gen. William C. Gorgas organized in his office a Division of Physical Reconstruction. This division seeks to secure as far as possible the full functioning again of the disabled man's physical and mental parts. Its methods, therefore, are primarily therapeutic and look to restoration to military duty, but the man's return to civil life is not overlooked. Such instruction as is provided is given prior to the man's discharge from service. The work is supported from appropriations for hospital and other health work in the Army.

MOBILIZING EDUCATIONAL INSTITUTIONS.

One of the first and most important needs of the Army, after America's entry into the war, was for additional officers. These were provided in reserve officers' training camps. A group of officer-candidates was assembled at each of these camps and given intensive training for a period of about three months, at the end of which successful candidates were awarded commissions. The first series of camps was begun in May, 1917, at 13 points in different parts of the country. Other series were held at intervals after that time. By May, 1918, numerous educational institutions had been made centers of officer training. Men of as much previous training as possible were desired, and naturally the eyes of the War Depart-

ment were turned for a large proportion of the officers needed to college graduates and students. The maintenance of units of the Reserve Officers' Training Corps at higher educational institutions was authorized by the "National Defense Act" of June 3, 1916.

"With a view to mobilizing the educational institutions of the country and their facilities for special training," the War Department announced, on February 13, 1918, the appointment of a committee on education and special training. This committee had been created three days previously by General Order No. 15. It was composed of Army officers, and an advisory committee of educational experts was added. The committee was charged with the supervision of the Students' Army Training Corps, which comprised a collegiate section and a vocational section. Units of the Students' Army Training Corps were organized at over 500 educational institutions of the country. The collegiate section consisted of regularly enrolled college students, who, on application and on meeting the physical requirements, were given the status of enlisted men and left, subject to call, in training at their respective institutions. The courses were arranged on the basis of a three-months' term and were designed for training both officer-candidates and technical experts. The War Department entered into contract with the institution for housing, subsistence, and tuition of the men of both the collegiate and the vocational section. No promise was given that a man would be left in college for any stated time, but so long as he was not called, his college education was provided by the Government. There was, however, the understanding that the call of the younger men would be deferred longer than that of men of maturer years.

The aim of the vocational section was to train men for service as trade specialists in the Army. They pursued such subjects as auto driving, auto repairing, bench woodwork, sheet-metal work, electrical work, and the like. As the courses were organized, they were to be given through a term of two months. Registrants who had a grammar-school education or equivalent trade experience were eligible for the vocational section. Induction was either by call of the local draft board, by application to the committee in Washington, or by transfer from other units.

In the last "draft law," approved August 31, 1918, legislative sanction in the following language was given to the work as planned by the Committee on Education and Special Training:

SEC. 7. That the Secretary of War is authorized to assign to educational institutions, for special and technical training, soldiers who enter the military service under the provisions of this act in such numbers and under such regulations as he may prescribe; and is authorized to contract with such educational institutions for the subsistence, quarters, and military and academic instruction of such soldiers.

It must not be supposed that all war education was intrusted to the Committee on Education and Special Training. On the contrary, the committee's activities were confined to educational institutions. Outside of these, important educational forces were "carrying on," for the Office of the Surgeon General, the Ordnance Department, the Quartermaster's Department, the Chemical Welfare Service, the Division of Military Aeronautics, the Signal Corps, the Motor Transport Corps, and the Engineer Corps, all had means of training for their respective purposes.

TRAINING SOLDIERS IN THE COMMON-SCHOOL BRANCHES.

An important branch of the Army educational system was that organized under General Order No. 45 and designated "Development battalions." These were designed for men who, because of remediable shortcomings, were at first unfit for full military duty. The fault might be either physical or mental. In the latter event, the remedy was generally instructional in character, as where a man of foreign birth or parentage was unable to speak and understand the English language, or where a native American was illiterate. These battalions were organized at all cantonments, and many thousands of foreigners and illiterates were given as far as practicable the elements of an English education.

SCHOOLS ON GOVERNMENT INDUSTRIAL RESERVATIONS.

In the spring of 1918 plans for the establishment and maintenance of schools for the children of workers employed on Government industrial reservations where munitions and accessories were manufactured for the Army were formulated in the office of the Chief of Ordnance and were later approved by the Third Assistant Secretary of War. By order of August 13, 1918, the Chief of Ordnance directed that the Community Organization Branch of the Industrial Service Section, Production Division, be charged with the organization and control of such schools. This branch was accordingly organized in the Ordnance Department, and a director and an assistant director were placed in charge. School systems have been organized or projected on reservations at or near the following places: Elmwood, N. J.; Mays Landing, N. J.; Delaware City, Del.; Tullytown, Pa.; Perryville, Md.; Charleston, W. Va.; Seven Pines, Va.; Penniman, Va.; Nashville, Tenn.; Muscle Shoals, Ala.; Sheffield, Ala.; Brunswick, Ga. The schools are supported by allotment from Federal appropriations. Superintendents, principals, and teachers are employed under the direction of the central office in Washington.

NAVAL EDUCATION.

In a manner similar to that of the Army, the Navy's educational system has undergone great expansion since the beginning of the war. In general, its system of training in war time parallels that of the Army. That is to say, men are inducted into the service in practically the same way and are given such preliminary and special training as the needs of the Navy and their previous education and aptitudes call for. By an agreement between the War and Navy Departments, the Navy was allotted, under the "draft law" of August 31, 1918, about 15,000 men per month. These received training, as circumstances determined, either in the "naval section" of the Students Army Training Corps—at over 90 educational institutions—or in the various naval-training stations and camps throughout the country. They, as well as the men of the Army, are entitled under the law to vocational rehabilitation in case of mutilation in the discharge of duty. Since the outbreak of the war, the number of cadets at the Naval Academy at Annapolis has been greatly increased by law.

ENLARGED ACTIVITIES OF THE DEPARTMENT OF LABOR.

When a state of war was declared between the United States and the German Government, the Department of Labor already included within its activities several lines of educational endeavor, particularly in connection with the work of the Bureau of Naturalization and the Children's Bureau, and after the outbreak of hostilities it was found necessary to enlarge the department's activities along various lines, including educational. Three notable agencies which touch education and which have been organized within the last biennium are the Employment Service, the Information and Education Service, and the Training and Dilution Service. Each of these offices is organized as a bureau and has a director in charge.

The United States Employment Service is an outgrowth of the general powers conferred upon the Department of Labor by Chapter 141, Acts of Congress of 1912-13, and of the more specific powers conferred upon the division of information of the department by section 30, chapter 29, Acts of 1916-17 (Immigration Act). For the fiscal year ending June 30, 1919, Congress appropriated (Sundry Civil Act of July 1, 1918), \$5,500,000—

to enable the Secretary of Labor, during the present emergency to furnish such information and to render such assistance in the employment of wage earners throughout the United States as may be deemed necessary in the prosecution of the war and to aid in the standardization of all wages paid by the Government of the United States and its agencies.

As a part of the work of this "service," the Boys' Working Reserve and the collegiate section of the Women's Division were organized. In the spring of 1918 the Boys' Working Reserve was mobilized and trained, as far as practicable, to spend their vacations in the country at farm work. Effort was also made to induce boys so employed in vacation time to return to school in the autumn. In connection with the reserve a collegiate section was maintained for the purpose of mobilizing college students in a similar manner. One of the functions of the Women's Division involves the placement of women, particularly college women, in suitable positions.

The Information and Education Service is educational in that it is an information-giving bureau. It was organized as a separate agency after the passage of the Sundry Civil Act of July 1, 1918, which appropriated \$225,000 for "information and education service." A similar appropriation in the same act was that of \$150,000 for the "training and dilution of labor." In war time it was found necessary to infiltrate unskilled labor into the industries to do a part of the work, usually simple processes, formerly done by the skilled worker. Prior to induction into such employment the prospective employee needs a short period of training. This "training and dilution of labor" is the work with which the office here mentioned is concerned.

In connection with the two older offices of the department which are in a measure concerned with education there are two notable activities of recent development. By act of June 29, 1906, the Bureau of Naturalization was charged, under the direction of the Secretary of Labor, with "all matters concerning the naturalization of aliens." Under this authorization and in pursuance of a plan formulated in April, 1914, this bureau has during the last three years sought to obtain the cooperation of public school authorities throughout the country in the Americanization of prospective citizens of foreign birth. It furnishes these authorities the names and addresses of declarants for citizenship and petitioners for naturalization for the purpose of bringing these declarants and petitioners under the Americanizing influence of the public school, and, by means of letters and otherwise, seeks to induce them and their wives to take advantage of the school opportunities afforded them. It also publishes and furnishes a manual for teachers and a textbook for the use of prospective citizens. Authority for the provision of textbooks is embodied in the Naturalization Act of May 9, 1918.

In addition to its other duties the Children's Bureau was charged with the enforcement of the act of September 1, 1916, entitled, "An act to prevent interstate commerce in the products of child labor, and for other purposes," and proceeded with the work of carrying the act into effect until it was declared unconstitutional by de-

cision of the Supreme Court of the United States rendered June 3, 1918. This decision was conclusive, rendering the so-called "child-labor law" wholly invalid and inoperative.

OTHER AGENCIES.

It is not the purpose of this review to enumerate and describe all of the Government's educational activities, nor to treat exhaustively all those that have been undertaken within the past two years. There are, however, some other activities that merit notice here, especially since they are the outgrowth of laws enacted within the period comprehended by this chapter. Among these are the training of shipyard workers and seamen under the Shipping Board, the dissemination of information and the promotion of a wholesome national spirit by the Committee on Public Information, and the conduct of propaganda for the conservation of food and fuel by the Food Administration and the Fuel Administration, respectively. From its organization the Shipping Board has sought to provide and to train as far as possible the workers necessary to build the ships provided for by the shipping law, and to man these ships after their entry into the marine service. In the planning of courses of instruction and the organization of its training system, the board has had the cooperation of the Federal Board for Vocational Education. The other agencies mentioned, particularly the Committee on Public Information and the Food Administration, have used school channels extensively for their respective purposes.

EXPANSION OF THE BUREAU OF EDUCATION.

For some years Congress has from time to time increased the appropriations made for the Bureau of Education. During the past two years these increases have amounted to \$36,760, exclusive of allowances for work among the natives of Alaska. For the fiscal year ending June 30, 1919, the total appropriation, exclusive of the sum for Alaska, is \$162,260. Increments to appropriations already provided in earlier laws include additions to the classified clerical force and more funds for the payment of traveling expenses. For the fiscal year 1918 the sum allowed for the investigation of rural education and industrial education was increased from \$35,000 to \$45,000, and a part of the latter sum was made available for school hygiene. This appropriation was raised to \$50,000 for the current year. During the same period the allowance for school and home gardening was increased from \$5,700 to \$7,500. New lines of work were authorized in 1918-19 by appropriations of \$9,000 for the "in-

vestigation of elementary and secondary education, including evening schools, and the wider use of the schoolhouse in cities and towns," and \$4,300 for the "investigation of kindergarten education." Thus, by increments to its annual allowances, and by new authorizations, the Bureau of Education is continually expanding, but there remain various lines of valid endeavor which it is not yet able to undertake.

COUNCIL OF NATIONAL DEFENSE.

The act making appropriations for the support of the Army for the fiscal year ended June 30, 1917, approved August 29, 1916, provided for a Council of National Defense to consist of the Secretaries of War, Navy, Interior, Agriculture, Commerce, and Labor, and to have associated with it an advisory commission, to consist of not more than seven members, appointed by the President. Among other duties the council is charged under the act with the "coordination of industries and resources for the national security and welfare" and with the "creation of relations which will render possible in time of need the immediate concentration and utilization of the resources of the Nation." The council has accordingly sought in various ways to mobilize and coordinate America's resources, including educational facilities. Among the important agencies organized by the council are the Committee on Engineering and Education, the Woman's Committee, the Committee on Labor, and the State Councils Section, all of which have done appreciable service in collecting data and obtaining the cooperation of the educational forces of the country. The act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1919, appropriates \$400,000 for the work of the council.

STATE LEGISLATION.

Since there have been 53 regular sessions of legislatures and a number of special sessions within the last two years, the volume of school legislation enacted in that time has been very large. It is safe to estimate the number of bills enacted into laws affecting education to have been more than 1,000. Whatever the exact number may be it is obviously too large to permit extensive treatment of every act, or even of every important act, in a brief survey of the kind attempted here. Moreover, brief digests and discussions of these acts are presented elsewhere in publications of the Bureau of Education. In this chapter the effort is made to consider the more significant educational movements and to show their progress through the enactment of law.

GENERAL STATE ADMINISTRATION.

The constant state of flux and change of statutory law is not so apparent in legislation affecting general State administration as it is in the details of the school system, or with the smaller units of school control. There are, however, some recent laws affecting State departments of education and general State school policies that merit especial notice. Among these are acts relating to the organization and powers of State boards of education and the powers and duties of superintendents of public instruction and provisions for State commissions for various purposes. An Illinois act of 1917 reorganizes the civil administration of that State by creating nine administrative departments. Among these is a "department of registration and education." In addition to the director, there are created in this department the offices of assistant director and superintendent of registration and education and a board to have control of the normal schools. This board consists of nine officers of the several departments, the director of registration and education, and the superintendent of public instruction. All offices created by this act are filled by appointment by the Governor for terms of four years, unless otherwise provided in the act. The department of registration and education succeeds to the powers and duties of the State board of education. Among other duties it is charged with the conduct of examinations of applicants for licenses to practice various professions and vocations, and with investigations and the dissemination of information respecting the resources, zoology, botany, entomology, geology, and water supply of the State.

An act of the legislature of Kansas (Ch. 297, Acts of 1917) provides for the management of State institutions by a State board of administration. This board consists of three qualified electors appointed by the governor with the consent of the senate; the governor is himself a member and chairman. The appointed members are to serve for terms of four years. Their salaries are \$3,600 each, and their entire time must be devoted to the duties of the board. Under the provisions of this act, the board of directors of the several educational, benevolent, penal and correctional institutions of the State are abolished, and the State board of administration succeeds to their powers and duties.

For some time there has been a distinct tendency in this country to replace ex-officio boards, or boards made up wholly or in large measure of incumbents of other offices, with members chosen directly from the people. Utah made a change in its State board of education in accordance with this tendency in 1915, and in 1917 (Ch. 478) Wisconsin did likewise. In the latter the board formerly consisted of the governor, secretary of state, superintendent of public in-

struction, one person appointed by the board of regents of the State university, and one appointed by the regents of the normal schools. By the act of 1917 the board is constituted as follows: Governor, superintendent of public instruction, one member appointed by the regents of the university, one member appointed by the regents of the normal schools, and five persons appointed by the governor with the consent of the senate. The terms of the five appointed by the governor are five years and are overlapping, one member being appointed each year. The board is charged with the management of the fiscal and business affairs of the educational agencies of the State.

The State board of education of Wyoming, as at present constituted, is a board in which the only ex-officio member is the superintendent of public instruction. This officer and six members appointed by the governor compose, under chapter 120, Acts of 1917, the board of education of that State. The powers and duties of the board are outlined as follows: To have general control and supervision of the public schools, to fix standards for the courses of study in elementary and high schools, to make rules for the certification of teachers, to conduct educational investigations, to have general oversight of vocational and other special schools receiving State aid, to advise the trustees of the university with respect to the normal department of that institution, to assume the powers and duties of the State board of examiners of applicants for teachers' certificates. The board is also authorized to appoint a commissioner of education who is made its executive officer.

By an act of 1917 Tennessee provided that at least three of the nine members of its State board of education must be chosen from the minority political party.

Another line along which legislatures have approached State administrative problems in recent years is the creation of commissions to make special studies and reports on educational conditions or particular phases of education. The greater number of these commissions has been created for the purpose of making recommendations with regard to codifying the school laws and eliminating contradictions and inconsistencies. That such a codification is needed in many States is apparent to anyone who examines carefully the pamphlets of school laws published by State departments of education. Nor is this need unknown to State school administrative officers. In the preface to the "Georgia School Laws and Decisions," published by that State's department of education, Superintendent M. L. Brittain says:

By reason of recent legislation many contradictions occur in the Georgia school laws. * * * For this reason it has been thought wise to publish

[only] extracts of our more important and most necessary educational legislation until the right is granted to arrange the laws changed, omit those practically repealed, and to print a complete and thorough school code.

The legislature of 1918 provided for a commission to codify the school laws of Georgia.

The Virginia Legislature of 1918 took a similar step and provided for a "commission to study educational conditions in Virginia and elsewhere and to report to the next general assembly its findings, together with recommendations for a revision of the school laws and amendments to Article IX of the constitution."

In 1917 the legislatures of Arizona, Delaware, and North Carolina provided for commissions to codify their school laws. The usual provision in enactments of this character is for a commission to study school conditions in the State and elsewhere and to make to the next session of the legislature a report embodying recommendations as to legislation. There is, however, a difference in the amounts of money made available for the purposes of commissions. This is important, for the study should be thorough, and sufficient time and energy should be devoted to the report and the draft of the proposed school code to make them thoroughgoing.

Another sort of commission created in 1917 was that provided by an act of the Michigan Legislature for the purpose of making investigations and submitting reports and recommendations with regard to child welfare.

Except as already indicated in connection with State boards, the chief State school officer, called "superintendent of public instruction" in most States, has been the subject of only minor legislation within the past two years. This legislation has concerned chiefly the manner of choosing State superintendents and their compensation and assistants. In Iowa, prior to 1917, the superintendent was appointed by the governor, but the legislature of that year (ch. 318) repealed this provision and provided instead for his election by the qualified electors. A law of Nebraska enacted in the same legislative year (ch. 37) provides for the nonpartisan nomination and election of the superintendent of public instruction, county superintendents of schools, and regents of the State university. The State of Idaho has had since 1913 both a superintendent of public instruction and a State commissioner of education, the latter office having been created by statute in that year. But since the office of superintendent was provided for in the constitution, the effort to substitute a commissioner for a superintendent involved the amendment of the constitution so as to abolish the latter position. Accordingly the necessary amendment was proposed by the legislature of 1917.¹ A new law of

¹ At the November election, 1918, this amendment failed of ratification.

Maryland enacted in 1918 requires the State superintendent to be a graduate of a standard college.

Acts of Connecticut and Michigan passed in 1917 provide for an assistant secretary of the State board of education and a deputy superintendent of public instruction, respectively. The act of Michigan also added two assistant superintendents. Enactments of Arizona and Delaware had the effect of increasing the compensation of the chief school officer of those States. South Dakota in the same year fixed by law the allowance for expenses of the State superintendent. Among other duties the office of director of State institutions, created in Vermont by act of March 2, 1917, includes the supervision and control of the Vermont Industrial School and the Vermont State School for Feeble-minded Children.

COUNTY ADMINISTRATION AND SUPERVISION.

For several years the county as a unit of school administration has been much in the minds of educators, and the subject has been much discussed both among school men and in State legislatures. In general, it may be said that there are three schools of thought with regard to local units of school administration: First, there are those who favor the county as the unit, and in strong form; that is to say, they would submerge the district as constituted in many States and make the county as effectually a unit of school control and supervision as the city generally is. A second group would have the "county unit" in modified form, leaving to each community a measure of local autonomy; and then there is the third group, which is averse to abandoning the district system or township system, according as one or the other of these two is preferred. Whatever may be the final outcome there is without doubt a trend toward the "county-unit" system at the present time. In his book, "The Rural Teacher and His Work," Dr. H. W. Foght classifies 19 States¹ as having adopted the county plan of organization and mentions a twentieth State² which permits its less-populous counties to adopt this plan by vote of the people. As between the advocates of what has been called the "pure county type" and those who prefer a modified form, results so far attained are indecisive. Dr. Foght classifies 10 States as belonging to the "mixed or semicounty type," though he himself would appear to favor the stronger organization.

Within the biennium treated here, the most notable change to the county system was that made in New Mexico in 1917. By act of the legislature (ch. 105) that State provided for a county board

¹ Alabama, Arizona, California, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Mexico, North Carolina, Ohio, South Carolina, Tennessee, Texas, Utah, Virginia, and Washington.

² Nebraska

of education of five members to consist of the county superintendent of schools and four qualified electors appointed by the district judge. This board is charged with the administration of schools throughout the county, excepting those in incorporated cities, towns, and villages. In general, this law of New Mexico may be regarded as representing the modified form of county administration. In the matter of finances the State and county funds are apportioned to school districts on the basis of the school census, and additional funds may be provided by district taxation. The expenditure of rural funds, however, is administered by the county board. Teachers are employed by the district board of directors with the approval of the county board. All equipment and supplies for rural schools, whenever possible, must be purchased by the county board in quantities and at wholesale prices. Rural school property is vested in the county board, and districts may be changed, consolidated, or abolished by the same authority. County superintendents remain, as formerly, officers elected by popular vote. Rural high schools, as well as rural schools of elementary grade, are subject to the control of the county board.

No other changes of great importance were made in county administration in 1917 or 1918. However, in North Carolina an act of the former year provided that in counties where members of the county boards of education were elected by the legislature candidates for membership in boards should be nominated at the party primaries or conventions and that the legislature should elect members from the nominations so made. In a Maryland act of 1918 district school boards are authorized to reject assignments of teachers to their respective districts, but the county superintendent is not required to make more than three nominations for the same position. In adopting this provision Maryland veered back slightly toward the "semicounty type."

Laws affecting county superintendents of schools have within the past biennium generally taken the form of provisions for increases in salaries and for deputy or assistant superintendents. Among the States which raised the salaries of their county superintendents were Arizona, Colorado, Delaware, Kentucky, Pennsylvania, and South Dakota. Kansas and Minnesota provided increases in the larger counties. The payment of the expenses of superintendents was provided for in Montana, Nebraska, and New Jersey. The law of the last mentioned, as amended in 1918, provides for the payment of the expenses of the superintendent, upon the presentation of proper vouchers, but such expenses must not exceed \$125 in any quarter year. Deputy or assistant county superintendents were provided for in 1917 in Arizona, Iowa, Kansas, Montana, and North Dakota. A South Dakota act of the same year provided for the

nonpartisan election of superintendents. Kentucky, at the last session of its legislature (1918), repealed an older law which required an examination for certification for eligibility to the office of county superintendent. In lieu of this provision it is now provided that any person holding the degree of bachelor of arts in education, bachelor of science in education, an advanced certificate issued by the University of Kentucky, or an advanced certificate issued by the State normal schools shall be eligible to hold the office.

THE SCHOOL DISTRICT.

Perhaps the most notable legislation under this head within the last two years was that enacted in New York in 1917. By the enactment of chapters 328 and 786 that State revised and reorganized its whole system of local school administration. The former act affected villages and rural communities, and the latter concerned city boards of education. The act affecting the smaller communities had the effect of abolishing all school districts as units of school administration and substituting therefor a larger unit, the township. This act, however, was repealed by chapter 199, Laws of 1918, and the old district system was accordingly restored. Chapter 786 was entitled "An act to amend the education law, by providing for a board of education in the several cities of the State." Under its provisions a city formerly having nine members or a small number on its board of education continues to have the same number, but in all other cities, except New York and newly created municipalities, the number of members is reduced to nine. New York City, which formerly had a board of 46 members, now has only seven, and boards of newly created municipalities will have five members. Where formerly elected, boards will be elected under this act, and where formerly appointed they will be appointed still. In general, this law leaves the functions of city administrative agencies substantially as they were prior to its passage. Its effect, in the main, is to repeal numerous special acts and to make more uniform the State's system of city school administration. In the legislature of 1918 it escaped the fate of the "township act," having been changed only by minor amendments.

CONSOLIDATION.

The movement for consolidated rural schools goes on without abatement; in every legislative year it is the subject of extensive legislation. Few now deny that, whenever practicable, the one-room rural school must give place to a larger, better-equipped, and more thoroughly graded seat of instruction. In States having county administration consolidation is easily effected through the powers of the

county board of education. In New England and a few States elsewhere a method of consolidation subsists in the township system. Where the district system prevails, laws specifically designed to effect a union of two or more districts are necessary. In view of this fact one looks to States having the district system for new laws relating to consolidation, and it is there that most of them are found. However, practically all States now have laws on the subject, and current enactments are generally of the nature of amendments to existing statutes. Among the States which have within the last two years changed their consolidation laws are Illinois, Iowa, Kentucky, Michigan, Oklahoma, South Dakota, Indiana, Kansas, Mississippi, and Wisconsin. In the first six of these the new enactments relate chiefly to the manner of consolidating, which is usually effected by vote of the people in the districts concerned. In Indiana, the transportation of pupils was the subject of legislation. There the township trustee is now required to provide transportation for all children who reside over 2 miles, and for children between 6 and 12 years of age who reside over 1 mile, from school. A Kansas act authorizes contracts with parents or other custodians to transport their own children. Mississippi in 1918 authorized school trustees of independent districts to provide transportation for children residing over 2 miles from school. A Wisconsin act of 1917 prescribes conditions on which State aid for transporting pupils will be granted.

PUBLIC-SCHOOL SUPPORT.

Two phases of school financing are prominent in present-day legislation. These are (1) the general tendency to increase tax rates for school purposes and (2) the effort to shift the burden of school support more from the local community to the larger units, State and county, or otherwise to equalize educational opportunities. It is not practicable nor desirable to outline here all recent provisions of funds for public schools. There is scarcely a State which has not amended within the past few years its law providing school revenue, and in nearly all cases increases in taxes have been allowed. Among the States which have made provision for such increases within the last biennium are Arkansas, California, Delaware, Florida, Idaho, Iowa, Kansas, Montana, Nebraska, New Jersey, North Carolina, Oklahoma, Oregon, South Carolina, Texas, and Virginia. It is worthy of note that among these States are some that provide for county taxation for educational purposes. The Legislature of Florida, for example, proposed in 1917 an amendment to the State constitution¹ which is designed to require each county to levy on all taxable property therein a school tax of not less than 3 mills nor

¹ Ratified by the voters at the November election, 1918.

more than 10 mills on the dollar. An Idaho statute enacted in the same year requires the board of county commissioners to levy a tax for general school purposes which shall be sufficient to raise a minimum of \$15 per capita of children of school age. An Oklahoma act provides a county tax of 1 mill on the dollar.

There is a sense in which the "county-unit" propaganda, the tendency toward increased State appropriations and taxation for education, and the advocacy of Federal aid to the State school systems may all be regarded as parts of the same effort. By this it is meant that all have their roots in the recognition of the unaided local community's inability to provide proper school facilities and of the larger unit's duty in the matter. That a larger proportion of the burden of school support will be taken from the school district and assumed by the State and county—and perhaps by the Federal Government—now seems certain; the trend of legislation is without doubt in that direction. A State appropriation for rural schools made in Texas in 1917 amounts to \$1,000,000 per annum. An amendment to the constitution proposed by the same legislature would provide a State tax of 35 cents on the hundred dollars.¹ By an act of the same year, Delaware provided an annual appropriation of \$250,000, out of the proceeds of the State's income tax, "for the benefit of the public schools." The Legislature of New Mexico provided for a State school tax of one-half mill on the dollar.

Legislatures of 1918 were no less generous with State provision of school funds. The Louisiana General Assembly proposed five amendments to the constitution,¹ all of which were designed to make more stable the State's system of school support and, particularly, to shift the burden more to the county and the State. Virginia increased from 10 to 14 cents on the hundred of property valuation the State tax levy and added \$100,000 to its annual appropriation for school purposes. In the Georgia Legislature the annual appropriation was increased \$300,000, and, had the bill become a law as it passed the lower house, the increase would have amounted to \$1,000,000. Massachusetts and Maryland also showed tendencies to add to the State's share in school support. By an act of the legislature of the former, State aid is granted to high schools in towns having fewer than 500 families and a comparatively low average of property valuation.

What is popularly known as "State aid" is a common form of State participation in school maintenance. This, in general, serves two purposes: (1) It is extended to the weak district to enable it to provide adequate, or more nearly adequate, common-school facilities; and (2) it is granted in some States to any district to encourage it

¹ Ratified by the voters at the November election, 1918.

to provide desirable types of special instruction, such as agriculture and home economics. Among the States which have recently enacted State-aid laws, or amended those already in force, are Connecticut, Delaware, Missouri, Rhode Island, South Carolina, Utah, and Wisconsin.

IMPROVEMENT OF THE TEACHING PERSONNEL.

Under this head are included the several elements which make for the development of efficient instruction. Among these elements are adequate training for the prospective teacher, higher salaries and better opportunities in the teaching profession, more contentment and security in employment, and better social conditions amid which the teacher may do his work. State laws looking to all these ends are to be found in recent acts of legislatures. With regard to the training of teachers some noteworthy acts have been passed within the past year or two.

A Massachusetts enactment of 1918 authorizes the State board of education to expend not exceeding \$4,000 a year for the purpose of aiding pupils in the State normal schools. In New York an act of the same year standardizes the compensation of the faculties of the State College for Teachers and the normal schools. Under the provisions of this act a salary schedule is prescribed. The salaries of the president and the dean of the college for teachers are fixed at \$6,000 and \$4,500, respectively, and the principal of each normal school is to receive the same pay as that of the dean of the college. The compensation of the professors, assistant professors, instructors, and assistant instructors in the college for teachers and of the heads of departments, assistants in departments, and critic and model teachers in the normal schools begins at a prescribed minimum for each class and proceeds by annual increments to a maximum which is likewise prescribed. According to this schedule the maximum for professors in the college is \$4,000, and for the head of a department in a normal school, \$3,000. An act passed in Nebraska in 1917 provides in the normals of that State an "elementary course" and an "advanced course" for teachers of rural schools. The Legislature of Arkansas in the same year authorized the State normal school to issue special certificates to teachers of rural schools and to persons completing the two-year course in home economics. A Washington act established extension departments in the normal schools of that State. Increases in funds for the maintenance of institutions for the training of teachers were provided in many States.

Another type of teacher training—a type designed chiefly to prepare persons to teach in rural communities—is that found in high schools and now become widespread in the country. Twenty-five

States have laws providing for such training. Among these are two, Montana and Wyoming, whose legislatures made the provision in 1917. The usual law on this subject authorizes approved four-year high schools to offer training courses and to grant diplomas upon which teachers' certificates of elementary grade may be issued without further examination. These laws also generally provide State aid for the payment of instructors in the normal branches.

Teachers' salaries, a constant subject of legislation, occupied the attention of legislative assemblies in 1917 and 1918, as well as those of previous years. In fact, the outbreak of the war and consequent rise in wages elsewhere made more acute the problem of retaining teachers in their positions at prevailing rates of pay, and this condition could hardly escape the attention of legislatures. The two usual forms of salary legislation, provisions for increased funds for tuition purposes and minimum-salary laws, were in evidence. Of the first of these, note has already been made under the heading "public-school support." Among the States which prescribed minimum amounts that may be paid to teachers or which amended existing statutes on the subject were Massachusetts, Delaware, Pennsylvania, Maryland, Kentucky, and Wisconsin. The usual law of this character prescribes a minimum monthly stipend for each grade of teachers, particularly teachers of the elementary grades. Thus Pennsylvania in 1917 (No. 425) provided that the holder of a provisional certificate shall receive not less than \$45 per month; the holder of a professional or a normal school certificate, not less than \$55; and the holder of a permanent certificate or final normal school diploma, not less than \$60. The object of the minimum salary law is twofold: It protects the teacher, especially the beginner, from the penuriousness of local school boards, and it prevents the bargain-driving board from going into the market and buying the cheapest possible teaching service. In both aspects it has a tendency to improve the character of instruction in the public schools.

Two kinds of laws tend to give the teacher a feeling of assurance and contentment, a desirable state of mind in a public servant so poorly paid. These are popularly known as "tenure laws" and "pension laws." Of the former there are as yet few on the statute books of the country, that of Massachusetts being among the more notable, but teachers' associations and like agencies are continually furthering the propaganda, and legislatures are brought more and more to consideration of the matter. It should not be the purpose of a tenure law to make secure in his or her position the inefficient teacher, but it is desirable that the efficient teacher be relieved, after a reasonable period of probation, of the burden of having to stand annually for reelection, and that on the school board should be placed

the burden of showing cause why any teacher's employment, after the period of probation, should be discontinued.

Many laws providing for the retirement of superannuated teachers are now in force. Thirty-seven States have such laws applying to the whole or some part of their areas. The most recent development in this field of legislation is the effort to put retirement systems on a sound actuarial basis. The acts of Connecticut and Pennsylvania passed in 1917 are representative of this effort.

Among the laws designed to improve the social environment of the teacher are those which provide for "cottages" or other homes for teachers, particularly in rural sections of the country. A few States now make provision for such cottages. Among these are Illinois, Tennessee, Louisiana, Texas, Nebraska, and Washington. The most recent addition to this group was Mississippi, which in an act of 1918 authorized independent school districts to levy a tax for the purpose of erecting teachers' homes. The provision of teachers' homes in connection with schoolhouses would seem to forecast the coming of a rural-school plant which shall consist not merely of a building for sheltering the pupils during the hours of instruction, but also of several acres of land, a dwelling, a barn, and other equipment suited to rural life and rural community purposes. There is in the country a well-defined movement which is working to this end.

THE CERTIFICATION OF TEACHERS.

Aside from the general tendency to raise the requirements of qualification to teach, there are two or three other aspects of teacher-certification which are worthy of note. Perhaps the most significant feature of recent legislation relating to this subject is the large number of provisions for special certificates. These are of various kinds, as for manual training, agriculture, industrial subjects, household economy, physical training, kindergartens, and classes for special types of children. Many legislative acts of recent years have provided for the certification of instructors in special branches. California, for example, amended its law in 1917 (ch. 699) so as to authorize county boards of education to issue special certificates to teachers of deaf and atypical children and of classes in citizenship, oral expression, library craft, commercial Spanish, and vocational guidance. Household economy is a subject which is prominent in laws providing for certification in special branches or classes. The tendency would seem to be to require of full-time teachers in this department graduation from a standard high school and the completion of a two-year course in home economics in addition thereto. Thus Michigan, by act of 1917, requires the completion of a two-year course in the subject, such course to be completed in the University

of Michigan, any State normal school, any college incorporated under the laws of the State, or any institution approved by the superintendent of public instruction.

The certification of kindergarten teachers is another subject of considerable legislation. Some States, in providing for the establishment and maintenance of kindergartens, include in the law requirements of teachers. Specialists in this branch of education hold that a kindergarten teacher should have completed a four-year course in high school and at least a two-year course in a training school, and the tendency in legislation appears to be working to this end. Maine, in 1917, provided that a kindergarten teacher must have completed at least a two-year course in kindergarten training and received a certificate or diploma from a training school approved by the State superintendent of public schools.

Another significant feature of recent certification laws is the provision for accrediting approved college and university diplomas and teachers' credentials issued in other States. Most States now have legal provisions of this character. Among the more recent laws on the subject are those of North Carolina and Florida, enacted in 1917, and that of Mississippi, enacted in 1918.

THE SCHOOL TERM.

In Bulletin, 1916, No. 42, "Minimum School-term Regulations," published by the Bureau of Education, it was shown that 44 States had at that time established by law a "minimum term of from 60 to 180 days' schooling for each organized school district." The four States named as having no such legal provision were Alabama, Georgia, Louisiana, and Rhode Island. Since, in the first three of these, the county-unit system of school administration prevails and county boards of education are authorized to distribute State and county funds, from which school support is largely derived, to local districts according to their respective needs, the requirement as to a minimum term there is not so essential as in some other States. In Rhode Island, where the public schools are already generously supported, the average school term being longer than that of any other State, minimum-term regulation would appear to be unnecessary.

In view of these facts, minimum-term legislation enacted within the last two years must of necessity have partaken largely of the nature of amendments to older laws. There have been, however, some noteworthy enactments of this nature. Nebraska, by act of 1917, increased from seven to eight months the length of term required of any district having between 20 and 75 persons of school age and fixed at not less than that length the term for any other

district when its school can be maintained on a tax of 15 mills added to funds received from the State. North Carolina in the same year provided for an annual county tax to aid districts in maintaining school for not less than six months. Reference has previously been made to an increase of \$100,000 in the State appropriation for school purposes in Virginia. In order to secure the best possible results from the increases provided in State funds, the legislature attached certain conditions to the distribution of the money accruing under the appropriation act. One of these conditions is that, in order to receive the benefits of this distribution, the district must maintain its schools for an average of seven months in the year.

COMPULSORY SCHOOL ATTENDANCE.

The most significant attendance law enacted in this country within the last decade was that passed by the Legislature of Mississippi in 1918. Its significance lies in the fact that every one of the 48 States now has a statute requiring attendance at school, for Mississippi's enactment was the last of the series. All of the States are now committed to the policy of requiring children to attend school for some period of their lives and for all or some part of the school term. The problem is no longer one of securing initial legislation in States not having attendance laws, but rather concerns the extension of the application of existing laws and otherwise making them more effective.

Reaching the last of a series conduces to retrospection. The period through which compulsory attendance was extending over the country—"from the Atlantic to the Pacific and from the Great Lakes to the Gulf"—was of 66 years' duration. The brief table presented below shows the years in which the several States enacted their initial laws on the subject:

*Date of enactment of compulsory attendance laws.**

Massachusetts	1852	Wyoming	1876
New York	1853	Ohio	1877
District of Columbia	1864	Wisconsin	1879
Vermont	1867	Rhode Island	1883
New Hampshire	1871	Illinois	1883
Michigan	1871	Dakota	1883
Washington	1871	Montana	1883
Connecticut	1872	Minnesota	1885
New Mexico	1872	Nebraska	1887
Nevada	1873	Idaho	1887
Kansas	1874	Colorado	1889
California	1874	Oregon	1889
Maine	1875	Utah	1890
New Jersey	1875	Pennsylvania	1895

* U. S. Bureau of Education, Bulletin, 1914, No. 2, p. 10, as revised to date.

Date of enactment of compulsory attendance laws—Continued.

Kentucky	1896	Oklahoma	1907
Indiana	1897	Virginia	1908
West Virginia	1897	Arkansas	1909
Arizona	1899	Louisiana	1910
Iowa	1902	South Carolina	1915
Maryland	1902	Texas	1915
Missouri	1905	Florida	1915
Tennessee	1905	Alabama	1915
Delaware	1907	Georgia	1916
North Carolina	1907	Mississippi	1918

This table shows only one phase of compulsory attendance—the time of its introduction into each of the several States. Another and perhaps more important phase is its growth in public favor after embodiment in law. This can not be shown so graphically. The usual course of the compulsory attendance movement in a State is through its embodiment in law and on into a period of extension of application and the adoption of more effective means of enforcement. Thus North Carolina enacted its first attendance law in 1907, made State wide its application in 1913, and extended the age limits in 1917.

The new law of Mississippi becomes applicable in a county or independent district only by an approving vote of the qualified electors residing therein. It fixes the age limits at 7 and 14 and requires attendance for at least 60 days in each year. Other noteworthy attendance laws of 1918 were a Massachusetts act further regulating the maintenance of county truant schools, a Kentucky act extending to magistrates' and police courts' jurisdiction in cases arising under the attendance law, and a Virginia act making its requirements State wide in application. Important laws were enacted in 1917 by the legislatures of Arkansas, Connecticut, Michigan, New York, North Carolina, North Dakota, Rhode Island, and South Dakota. In Arkansas the requirement is extended to the entire State; in Connecticut, a State "prosecuting agent" is provided to enforce the law; in Michigan, private and parochial schools are required to make reports; in New York, the number of days of required attendance each year is increased from 160 to 180; in the other States mentioned the age limits are extended in one way or another.

HEALTH AND SANITATION.

Reference is made elsewhere in this chapter to some wholesome effects of the war upon educational legislation. Without doubt the outbreak of hostilities in Europe and the accelerated propaganda for "preparedness" in this country gave strong impetus to physical training in the public schools. This is evidenced by the passage of the laws of New York and Louisiana in 1916, and by the adoption early in 1917 of provisions for physical training in all schools or

for military training in high schools, or for both, in Arizona, Indiana, Nevada, New Jersey, Oklahoma, and Oregon. Since the entry of the United States into the war, California, Delaware, Michigan, Rhode Island, and Maryland have enacted similar laws. The law of Maryland was passed in 1918 (ch. 269). According to its provisions, physical training must be provided in all public schools and schools receiving State aid. The State board of education is authorized and directed to regulate such training and to appoint a State supervisor of physical training and such assistants as may be deemed necessary. With respect to recent laws providing for military science and tactics in secondary schools, it may be noted that in only two States, New York and Arizona, are the provisions made mandatory in relation to both school authorities and high-school students. In New Jersey, the State board of education is authorized to make the requirement that military training be given in the high schools. Without regard to military training in high schools, the following States now provide by law for physical training in the common schools: California, Delaware, Illinois, Maryland, Nevada, New Jersey, New York, and Rhode Island. All of these, except Illinois, which enacted its law in 1915, have made the provision within the last two years.

The physical examination of school children, which had its beginning in San Antonio in 1890 and attained its earliest high degree of development in Boston in 1894, is now provided in some form in all States, though there are still a few which have no specific law on the subject. Recent laws are concerned with the extension of the practice and with the provision of kindred activities. An act of the New Hampshire Legislature of 1917 requires the school board of every city, union, special or town school district to submit to the qualified electors the question of providing medical inspection of schools. A Nevada act of the same year requires teachers to make examination of school children to ascertain if they are defective as to sight or hearing, have diseased teeth, or are addicted to mouth breathing. North Carolina and North Dakota provide for medical inspection by county authorities. In Wisconsin teachers are now required by law to send insanitary pupils home. Pennsylvania and Rhode Island, under acts of 1917, provide for the professional treatment of certain pupils—the former for those having defective eyes or teeth and the latter for those having defective teeth. In 1918 New Jersey authorized the maintenance of dental clinics for indigent children, and Virginia authorized county boards of supervisors to appropriate county funds for the purpose of providing medical inspection of school children and for the employment of nurses to visit schools and homes.

The regulation of schoolhouse construction and the prevention of the common use of drinking cups and the like were likewise sub-

jects of legislation in 1917 and 1918. Vermont and Washington in the former year enacted laws designed to protect school children from accidents caused by automobiles. Vermont now requires within 200 feet of a schoolhouse the sign, "Two hundred feet to a schoolhouse." In Washington the sign, "School, slow down," must be placed within 100 yards of each school. A few States regulated the construction of fire escapes, and California and Arizona prohibited the common use of drinking cups.

HIGH SCHOOLS.

High-school laws enacted within the last two years concern chiefly the extension of secondary education. As seen in legislation this extension presents three noteworthy aspects: (1) The general tendency toward universal high-school education; (2) legislative recognition of the "junior high school"; and (3) provision for the "junior college." The first of these is evidenced by the recent enactments of a number of States. In 1917 New Hampshire, Michigan, Kansas, and Montana provided for the payment of the tuition fees of pupils of secondary grade whose home districts were not providing adequate facilities for pupils of their attainments. In the first two of these the tuition fees are paid by the district, in the latter two the county bears the burden of payment. In several other laws authority for the establishment and maintenance of high schools is conferred. A Tennessee act of the same year (chapter 96) reorganizes generally the secondary schools of that State. Under the provisions of this act elementary schools consist of the first eight grades, and high schools may be either two-year, three-year, or four-year schools. The courses of study are prescribed by the State board of education. Without affecting four-year schools already established, the county high-school boards may establish a sufficient number of two-year and three-year courses to meet the needs of rural communities. A county tax of one-half mill is authorized for the promotion of secondary education. The county court elects the high-school board. An Illinois act of 1917 requires all that part of a county not in a school corporation maintaining a four-year high school to be organized as a "nonhigh-school district" for the purpose of levying a tax and paying the tuition fees of high-school pupils residing therein.

The junior high school, which is now widespread in the country, has received specific legislative recognition in Vermont, California, and Michigan. In many States specific legal provision for such schools is unnecessary, since they may be provided under authority of existing law. The "junior college" is a later development in secondary education. It consists usually of an extension of the four-year course to include two additional years, which correspond in general to the freshman and sophomore years in college. Three

States, California, Kansas, and Michigan, made provision for junior colleges in 1917. The Kansas act (ch. 283) provides for a two-year course in advance of the regular course approved by the State board of education and applies to cities of the first and second classes and to county high schools. This extension, however, must have the approval of the qualified electors voting at an election. A tax of 2 mills in a city or one-tenth mill in a county may be levied to carry out the purpose of this act.

In 1918 three States enacted important high-school laws: Massachusetts granted State aid for secondary education in the smaller towns; Maryland added to its system a third class of high schools; and Virginia authorized schools of two, three, or four rooms to give instruction in secondary subjects, if approved by the State board of education.

SPECIAL CLASSES FOR ATYPICAL CHILDREN.

More than three-fourths of the States now have institutions to which feeble-minded youth may be committed and given training suitable to their capacities, and other States are, from time to time, being added to this group. Thus Texas provided for a State "farm colony" for the feeble-minded in 1915, and South Carolina made similar provision in 1918. It would seem, therefore, that atypical children of the type commonly called "institutional cases" are soon to be provided for by law, but the higher grades of subnormality, such as pupils retarded from one to three years in their studies, have received less legislative attention. There are, however, some signs that provision for these higher grades may be made in the near future. Already special classes for "backward children" are widely maintained, but this provision needs encouragement and direction. A few States, as New York, New Jersey, Wisconsin, and Minnesota, make special legal provision for subnormal children.

The New York law was enacted in 1917 (ch. 533). It directs the board of education of each city, union free school district, or common-school district to ascertain the number of children in attendance upon the public schools therein who are three years or more retarded in mental development and requires the board of each city or union free school district in which there are 10 or more such children to establish special classes for them. Any school corporation having fewer than 10 such children may contract for their instruction in another city or district maintaining classes as provided by this act. An amendment of 1918 authorizes boards to contract with approved institutions in lieu of organizing special classes. A Wisconsin act of 1917 authorizes city and village districts, with the approval of the State superintendent, to establish and maintain classes for "ex-

ceptional persons of school age." A State supervisor of such classes is provided for, and State aid is granted annually to the extent of one-third of the salary of each teacher so employed, but not exceeding \$300 of State funds may be paid to any one teacher.

CIVIC AND PATRIOTIC INSTRUCTION.

The enactment of laws designed to provide instruction in patriotism affords another example of the impulse given to some kinds of school legislation by the European war. Laws enacted for this purpose have generally taken the form of a requirement that patriotic instruction and exercises be incorporated in the school curriculum and, in the absence of an earlier law on the subject, provision for the display of the United States flag on or near each schoolhouse. Massachusetts and Minnesota, by acts of 1917, provided for training in the duties of citizenship; and in the following year New York and Texas made provision for patriotic instruction. In New York an earlier law left to the option of the local school board the inclusion of patriotic lessons in the curriculum. The new law requires instruction in patriotism in all schools, both public and private. The Texas law, enacted at a special session of the legislature in 1918, requires every public school-teacher to devote at least 10 minutes each school day to instruction designed to inculcate "intelligent patriotism."

About three-fourths of the States now require the display of the United States flag on or near every public school building. By act of April 21, 1917, Florida required the display of the flag on schoolhouses, and in 1918 Maryland and Texas enacted similar laws. There remain 10 States of the South which have no law on the subject, but the recent enactments mentioned here would seem to indicate that all States may soon have legal provision for the display of the flag.

THE ELIMINATION OF ILLITERACY AND THE AMERICANIZATION OF ALIENS.

In some aspects the immigrant and the illiterate native present to the American people the same problem: Both are civically unadjusted, both are in need of education more or less elementary in character, and in both cases it is in large measure the adult who makes the problem. Still another likeness appears in the fact that the same kind of school, the evening school, will either serve the purpose of Americanizing the alien or afford instruction for the illiterate native.

Within the period comprehended by this review several States have enacted laws looking to the Americanization of the alien and the elimination of illiteracy. The custom in some of the Southern States of conducting "moonlight schools" and like activities for

the instruction of illiterate persons is growing. In a few States these activities are conducted under the direction of State "illiteracy commissions." In addition to those already established, commissions of this nature were created in Mississippi in 1916 and in Arkansas in 1917. No State appropriation, however, was made in either case. This was in accord with past practice, for initial acts creating these commissions have generally carried no appropriation, the commission being left to look to private benefaction for support. A second step in the procedure, however, has been reached. In 1917 North Carolina and in 1918 Kentucky, each appropriated \$25,000 annually for the work of reducing illiteracy within their respective borders. Thus the States are beginning to take more vigorous hold of the problem.

The legislature of New York in 1918 passed three acts designed to cure the malady of illiterate citizenship in that State. An act known as the "Lockwood law" authorizes the establishment of institutes in the normal schools and in cities for the purpose of training teachers to give instruction to adult illiterates. A second act, the "Robinson law," requires attendance at either day or evening school of all persons between 16 and 21 years of age who do not possess such ability to speak and write the English language as is required for completing the work of the fifth grade of the elementary school. A third act requires the maintenance of evening schools in cities of the first, second, and third classes, and in union free school districts under certain prescribed conditions. The legislature of Arizona, at a special session in 1918, provided for "night schools" in districts "where there are 15 or more persons over 16 years of age who either do not read and write the English language, or who do not speak the English language." State aid is granted for the support of the schools provided for in the Arizona act. A Mississippi act of the same year authorizes any school district to levy a local tax for the purpose of maintaining evening or part-time schools for "persons in need of such instruction."

Reverting to the legislation of 1917, one finds that in that year at least a dozen States enacted laws affecting evening schools. Colorado authorized the establishment of public day and continuation schools, part-time schools, and evening classes for instruction in the arts and practices of trades and vocations, and empowered the State board of education to expend State funds therefor. Under the provisions of an Iowa act any school district may establish evening schools for persons over 16 years of age, and is required to establish such a school whenever 10 or more persons entitled to attend desire instruction therein in the common branches. Laws of California, Minnesota, and Tennessee provided, respectively, for both day and evening classes for persons over 14 years of age, for evening schools

for persons over 16, and for "night schools" for persons over 15. Nevada and North Dakota provided generally for evening schools. An act of New Mexico authorizes the directors of any school district in which there are 10 or more illiterate or semi-illiterate persons to employ the day-school teacher to give such persons instruction in the evenings. New Jersey now provides for the proportionate payment of State funds for evening schools for foreign-born residents when the aggregate to which such schools are entitled exceeds the State appropriation. The new law of South Carolina permits persons over 21 years of age to attend "public night schools." West Virginia authorizes the establishment of evening schools for persons over the compulsory-attendance age. Wisconsin increased to three-fourths mill the tax that may be levied in cities for industrial and continuation schools. From these laws at least one significant fact emerges: The older evening school conducted generally as an "opportunity school" for youth is now more extended in scope and function so as to include instruction for adults who are in need of further education and civic adjustment.

COMMUNITY ORGANIZATION IN SCHOOLHOUSES.

The propaganda for the "wider use of the school plant" is now more than a decade old, the social and recreation centers of Rochester, N. Y., having attracted wide attention as early as 1907, but the conception of this "wider use" has now grown broader. "The ultimate unit in every State, Territory, and possession of the United States is the school district. Every school district should therefore be a little democracy, and the schoolhouse should be the community capitol," says Dr. P. P. Claxton.¹ From this statement one gets the idea that every community is entitled to constitute itself a little democracy, centering in meetings at the schoolhouse, and conducting such legitimate neighborhood activities as it may deem proper, and without doubt this is the trend of present-day thought on the subject. In 1917, not fewer than 14 States made provision in one form or another for the use of the schoolhouse as a center of community activities other than the ordinary instruction given to pupils in the day schools.

Laws permitting local school authorities to open schoolhouses for recreational and other community purposes were enacted in 1917 in Iowa, Kansas, Michigan, Minnesota, Oklahoma, and Utah. In these laws the use of the schoolhouse for such purposes is left to the discretion of the school board; that is to say, the board is the final authority in determining whether the school plant shall be so used. Many of the friends of the community-center movement would have laws drawn in stronger form. They would have them require the

¹ U. S. Bureau of Education, Bulletin, 1918, No. 11, p. 5.

school board to open the schoolhouse for community activities when requested so to do by a sufficient number of citizens. Several laws enacted in 1917 were framed in accordance with this view. Thus, the Legislature of New Jersey changed from permissive to mandatory the law of that State. The district or city board of education there is now required, "subject to reasonable regulations to be adopted by said board or upon notification by the commissioner of education," to permit the use of the schoolhouse for community purposes. In New York, on petition of 25 citizens of any school district or city, the district board of trustees or city board of education is now required to organize and conduct community centers and civic forums and to provide funds for their support. Ohio likewise requires school boards to permit such use of school property.

An important feature of a well-organized community center is the provision for a "community secretary," or executive officer of the community organization. This office, which has already appeared in practice, is now appearing in laws on the subject. An example is found in chapter 86 of the New Hampshire Acts of 1917. This law authorizes cities and towns to equip and operate playgrounds and recreation centers and to employ "such play leaders, playground instructors, supervisors, recreation secretary, or superintendent and other officials as it deems best." The school board may be given charge of such activities, in which case schoolhouses may be used to carry out the purposes of the act.

The act of Congress making appropriations for the expenses of the government of the District of Columbia for the fiscal year ended June 30, 1918, provided "for the payment of necessary expenses connected with the organization and conducting of community forums and civic centers in school buildings, including * * * payment of janitor service, secretaries, teachers, and organizers. * * * \$5,000." This provision was continued in the appropriation act for the current year.

A North Carolina enactment of 1917 makes it the duty of the State superintendent of public instruction to provide a series of entertainments, varying in character and cost and consisting of motion pictures, to be given in rural schoolhouses. One-third of the cost of these entertainments is to be borne by the State, and the other two-thirds must be provided by the county board of education or the rural school community. An annual State appropriation of \$25,000 is made by this act. An act of the South Dakota Legislature authorizes school districts to levy taxes for community-center purposes, and a Texas act permits the use of school buildings for holding elections.

In 1918 Rhode Island, New Jersey, and Maryland made further provision for the community use of the school plant. The first two of these authorized the use of schoolhouses as polling places. Maryland

provided for community meetings and authorized the State superintendent to arrange for pictorial instruction in the schools.

TEXTBOOKS.

Textbook laws passed within the past two years present no especially distinctive features. Free textbooks and State uniformity have been subjects of legislation for a number of years, and the enactments of 1917 and 1918 followed the older lines. Montana, which prior to 1917 had a law permitting school districts to furnish books free of cost to public-school pupils, amended its law in that year so as to require that books be so furnished. Florida authorized the provision of free textbooks in two of its more important counties. With regard to uniformity of textbooks, one important law was enacted—Arkansas (act 112) changed its system from county uniformity to State uniformity.

A phase of textbook regulation which has received considerable attention in recent years is the requirement that any person, firm, or corporation offering books for sale or exchange in the State must file in the office of the State superintendent samples of such books and lists of prices at which they shall be sold. Thirteen States—Georgia, Illinois, Indiana, Iowa, Michigan, Minnesota, Mississippi, Missouri, Nebraska, North Dakota, Ohio, Wisconsin, and Wyoming—now make such requirement, Illinois and Wisconsin having enacted laws to that end in 1917. In Georgia, Indiana, and Mississippi the requirement applies to books not subject to the uniform-textbook laws. States which do not belong either to this group of so-called “filing States” or in the list of those providing for State or county uniformity are Colorado, Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

LIBRARIES.

Some months ago a study of State laws relating to libraries was made in the Bureau of Education, and a summary of those in force January 1, 1918, was prepared. This summary disclosed the following facts respecting State provision of library facilities:

Number having State libraries	48
Number having State commissions for the promotion of libraries	34
Number having State traveling libraries	33
Number having State legislative reference bureaus	30
Number having State historical commissions (official)	22
State aid to State historical societies	30
Number providing by law for county libraries	19
Number providing for county traveling libraries	13
Number providing for local public libraries	48
Number providing for public school libraries	43
State aid to public libraries	11
State aid to school libraries	19

Of the items enumerated in this table perhaps the most prominent in the library legislation of recent years are the provisions for legislative reference bureaus, county libraries, and school libraries. It will be observed that 30 States now make provision for legislative reference bureaus, whose essential function is to make comparative studies of legislation. This is a wholesome sign, for it shows a trend away from the older haphazard manner of enacting laws and toward the practice of framing new legislation in the light of the experience of other States.

In 1917 seven States—Indiana, Michigan, North Carolina, Pennsylvania, South Dakota, Texas, and West Virginia—authorized the establishment and maintenance of county public libraries. Whether this forecasts an extension of the county-library system to all parts of the country not already supplied with local community libraries can not now be determined, but it unquestionably shows a very strong present tendency to provide library facilities in this way. The county system would seem a thoroughly feasible system for rural sections of the country. A county library located at the county seat, having branches at other centers of population, and sending out traveling collections to every schoolhouse as a distributing station, can be made to serve every community in the county. School libraries, for which 43 States have made legal provision, have been widely extended in recent years, and rightly so, but the county library can be made to correlate and largely increase the reading facilities of the people.

HIGHER EDUCATION.

Perhaps the most important recent legislation affecting institutions of higher learning is that which regulates the finances or systems of support of State colleges and universities. In the matter of general maintenance and current expenses, there is a tendency both to increase the amounts allowed and to stabilize support by providing for tax levies to replace the older practice of making statutory appropriations. Increases in appropriations and tax levies as well were allowed within the last two years in several States. Colorado in 1917 provided for the State university a levy of eight one-hundredths of a mill in addition to the tax already authorized for that institution, and increased to the extent of three-tenths of a mill the tax for the construction and equipment of buildings for all of its institutions of higher learning. The Kansas Legislature of the same year proposed an amendment to the State constitution designed to authorize the legislature to fix a tax rate for the support of the State educational institutions. The Legislature of Washington fixed the levy for the university of that State at seventy-four one-hundredths of a mill. For

the biennium ending June 30, 1919, Illinois appropriates \$4,800,000 to its university, and the fund for the maintenance of the University of California is allowed to increase until the fiscal year 1920 at a rate sufficient to make for each year a sum equal to 107 per cent of the sum for the preceding year.

Provision of funds for buildings and kindred outlays for higher institutions was likewise prominent in the legislation of 1917. In some cases, these funds were provided by bond issues, and in others by tax levies. North Carolina and Tennessee chose the former means. In North Carolina an issue not to exceed \$3,000,000 in amount was authorized for the permanent enlargement and improvement of the State's educational and charitable institutions, and in Tennessee an issue of \$1,000,000 was allowed for the university. Wyoming provided, for the purpose of permanent buildings and improvements at its university, a State tax of one-eighth of a mill in addition to other taxes and appropriations.

The tendency to extend to a wider clientele the benefits of State institutions of higher learning is present in the legislative enactments considered here, as it has been in those of some former years. This extension usually takes the form either of scholarships or of provision of free tuition for the residents of the State. A New Hampshire act of 1917 appropriates \$15,000 annually to Dartmouth College, and directs that out of this amount 10 scholarships be provided for residents of the State. A Virginia act of 1918 provides 119 scholarships—one from each of the school divisions of the State—at the University of Virginia. These entitle their holders "to tuition in the college, room rent, light, heat, and attendance free of charge." Where there is more than one applicant in a school division, the beneficiary is to be selected by competitive examination. If the holder of a scholarship remains at the university two years or more, he must after leaving devote two school years to service as an administrative officer or teacher in the school system. A new Wisconsin law (1917) provides free tuition at the university for students whose parents have resided in the State one year or more; and a Montana act authorizes refunds of traveling expenses, less \$5, of students in the institutions of the university who are residents of the State.

The administration or control of State higher institutions was the subject of legislation in a few States in 1917 and 1918. Arizona created a commission of three members to devote their entire time to the general control of the State charitable, penal, and reformatory institutions and to the supervision of the finances of the university, normal schools, Pioneer Historical Society, State library, and legislative reference library. Nevada amended its law so as to reconstitute the board of regents of the university; this board now consists of five members, elected by vote of the people. North Carolina

increased from 81 to 101 the number of trustees of the university of that State.

In 1915 Massachusetts provided for a department of university extension under the control of the State board of education. The State appropriation for this purpose for the fiscal year 1918 was \$90,000. An act of the Legislature of Wisconsin passed in 1917 authorized the regents of the State university to establish and maintain a training school for public service.

The State of Washington in 1917 (ch. 10) sought to correlate as far as practicable the courses of instruction offered in its higher institutions and to eliminate unnecessary duplication of work. This act prescribes the "exclusive major lines" which the courses at the university shall embrace, and like provision is made with regard to the State agricultural college. Courses permitted in either or both institutions are likewise outlined in the act. Courses in the State normal schools are to be prescribed by the State board of education, but within the limits indicated in the law. A "joint board of higher curricula" composed of nine members is charged with the duty of "considering matters of efficiency and economy in the administration of the foregoing institutions."

CHAPTER XX.

LIBRARY ACTIVITIES, 1916-1918.

By JOHN D. WOLCOTT,

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CONTENTS.—The libraries and the war.—War service of the American Library Association.—American Library Association conference, 1918.—The libraries and reconstruction.—Rural library extension: State work.—Rural library extension: County and township plans.—Library surveys.—High-school libraries.

THE LIBRARIES AND THE WAR.

Upon the outbreak of the war between the United States and Germany in April, 1917, the librarians of the country, whether of public, society, or school libraries, straightway proceeded to consider how they might best serve the Nation in the crisis which was at hand and placed their resources unreservedly at the disposal of the Government. The outcome was the cooperation of practically every American library to a greater or less extent in a program of war service which may be outlined under the following heads: As agencies of war publicity for the Government; work in behalf of food conservation; cooperation in liberty-loan and war-saving campaigns; aid to the Red Cross, Young Men's Christian Association, and other agencies of war relief; Americanization of aliens; and providing library facilities for soldiers. The last-named service was rendered directly by libraries situated adjacent to camps, hospitals, and stations, and in general by the cooperation of practically all librarians in the corporate war work of their professional organization, the American Library Association. It was also recognized that an important function of the library in war time is to uphold the spirits of the people by supplying literature clearly presenting American ideals, and also expressing the great universal principles which serve for encouragement in sacrifice and consolation in bereavement. In addition, the general educational facilities of the public library serve in both war and peace to raise the standard of efficiency of the people to meet their practical responsibilities.

The war affected the budget of the libraries in two ways—by diminishing their income, because of decreased appropriations, etc., and by reducing the purchasing power of the incomes actually received. The inroads made on library staffs by war conditions also

rendered the problem of service pressing, and the mounting cost of living makes increased salaries for library workers more and more imperative. The libraries, in common with other institutions, consequently labor under serious economic difficulties, which have obliged many libraries to curtail their usual activities. Some communities even proposed to close their public libraries during the war, but against this course reasons similar to those advising the continuance of school and college sessions in war time usually prevailed.

WAR SERVICE OF THE AMERICAN LIBRARY ASSOCIATION.

At the Louisville conference of the American Library Association, in June, 1917, a war-service committee was constituted, in accordance with a recommendation presented in the report of a preliminary war-work committee appointed soon after the entrance of the United States into the contest. The war-service committee was empowered to devise methods by which the association might aid in providing reading matter for the soldiers and to solicit funds for the erection and equipment of camp libraries.

A few weeks thereafter the commission on training-camp activities of the War Department requested the American Library Association to assume responsibility for providing adequate library facilities in the cantonments and National Guard training camps soon to be opened. The acceptance of the invitation from the commission placed the war-service committee in direct official relations to the Government through the War Department. The committee began work at once collecting books and making plans and arrangements, basing its operations at first on volunteer service and on a small fund contributed by members of the American Library Association. While awaiting the erection of camp library buildings the books available were distributed through the Young Men's Christian Association and similar agencies.

During the last week of September, 1917, a national "million-dollar drive" for funds was held, which succeeded in raising approximately \$1,750,000. In the campaign for this fund the war-service committee was assisted by a library war committee composed of nationally known citizens appointed by the Secretary of War. Further provision for the work was made by a grant of \$320,000 from the Carnegie Corporation, to be used for erection of camp library buildings, at a maximum cost of \$10,000 for each building.

The raising of the funds made it possible by October 1, 1917, to unify the work in a single office, under a skilled executive with a paid office staff, and to proceed with an extensive program of activities. Headquarters for the war-service committee were established in the Library of Congress, at Washington, and Herbert Putnam,

Librarian of Congress, was made general director. This centralization has resulted in a great impetus for the work. For the shipment of books for overseas service, dispatch offices were established at the principal ports of embarkation, each office being provided with a suitable stock of books and facilities for sorting, casing, and delivery. Librarians were appointed for the camps, generally from young men of experience in library work. By the spring of 1918 a larger supply of gift books became necessary, and accordingly in April an intensive campaign was undertaken to secure them. This campaign resulted in the immediate collection of more than 3,000,000 volumes, most of them suitable for use.

At the end of 1918 there were in the United States separate library buildings in 47 large camps, each housing 30,000 or more volumes, and each serving as a central depot for distribution of books to stations of various sorts throughout the camps. These agencies served, when the camps were full, more than 1,500,000 men. In addition to these, 270 smaller camps and posts, 151 naval, and 40 Marine Corps stations, 54 aviation fields, and 60 Students Army Training Corps units were supplied with books.

Numerous branches and stations were established in the huts, canteens, clubrooms, and hostess houses of the other six organizations cooperating in war-welfare work, and in other Army and Navy quarters; besides many hospitals and Red Cross convalescent houses were supplied with books, and in most cases also with personal service. More than 300 vessels were furnished with libraries, and a deck library was provided for every transport passing between America and Europe.

By December 31, 1918, 3,854,729 volumes had been collected as gifts from the American people and placed in circulation, and 1,722,000 additional books, mainly technical, historical, sociological, and military, had been purchased. It has been necessary to buy very little fiction, the supply donated being sufficient. More than 5,000,000 magazines donated by the public through the Post Office Department under the 1-cent mailing privilege were distributed both in this country and abroad. The association sent overseas 1,337,259 books, a number limited only by the War Department's restriction of transportation to 50 tons of books per month. The American Library Association maintains a central book collection and a public reading room in Paris. A staff of nearly 300 persons was employed in the 47 camp libraries in the United States, at the headquarters of the Library War Service in Washington, and in France, while more than 400 American librarians cooperated to some extent in the work during the 15 months beginning with October, 1917.

The total expenditures of the Library War Service up to December 31, 1918, for buildings and equipment, books, service and subsistence, supplies and general equipment, travel, freight, and miscellaneous were \$1,763,543.22.

In addition to the \$1,750,000 proceeds to the American Library Association from public subscription in September, 1917, the War Department approved its budget in the sum of \$3,500,000 as part of the total sum raised in the United War Work Campaign of November, 1918. This fund is to be used for continuance of the work at home, but more particularly for work in Europe during demobilization, including an extensive book service in connection with the War Department's educational program for the American soldiers remaining in France.

The American Library Association has prepared a number of brief and attractive reading lists on various subjects for circulation among the soldiers. Some of these reading lists have been prepared by the association in cooperation with the Bureau of Education.

AMERICAN LIBRARY ASSOCIATION CONFERENCE, 1918.

The fortieth annual meeting of the American Library Association at Saratoga Springs, N. Y., July 1-6, 1918, with about 600 in attendance, largely leaders in the profession, was especially a war gathering. A conspicuous feature of the meeting was a numerous group of librarians in service uniform from camp, hospital, and dispatch service. Four round tables for camp librarians were held, at which their problems were thoroughly discussed. The exhibits displayed also related to war activities, such as camp libraries and the library's part in stimulating food conservation. The following titles of a number of important general papers by prominent librarians will give an idea of the character of the program: What each of the following is doing to help win the war—The city library; the library commission; the county and rural library; the State library; the university library.

THE LIBRARIES AND RECONSTRUCTION.

The public libraries of America recognize their particular duty as educational institutions to assist in the work of reconstruction following the war, and are already setting themselves energetically to this task.¹ As in war time, so also during peace the library is to continue to be an agency for conveying information from the Government to the people, thus helping to keep the two in touch with each other.

¹ The conference of the American Library Association at Asbury Park, N. J., in June 1919, gave special attention to the problems of national reconstruction as related to the library.

On various occasions the Government will have messages on matters affecting the common welfare, which the public library will share in circulating.

During the period of reconstruction the public library will continue to provide literature clearly and truly presenting American ideals for the guidance and inspiration of the citizens. The library must further supply from every possible source accurate information on the important questions of public policy now pressing for solution, so that the people may have the material on which to base intelligent decisions regarding them. These questions relate, for example, to the problems of railroad administration, of labor conditions, and of the high cost of living. Now that America has become a world power, there are also subjects connected with international relations to be considered, such as the league of nations, the Monroe doctrine, etc.

The public libraries may be relied on to continue their cooperation in the movements to inculcate habits of thrift in the young and for child conservation in connection with the Children's Bureau and similar agencies. It is likely also that the work for food conservation will require continuance for some time after the conclusion of peace.

The American soldiers have become accustomed to excellent library facilities both in the camps in the United States and while on overseas duty, and it is believed that in most cases the men have permanently acquired the library habit. On their return to civil life they should find service from the public library equal in quality to that which they received from their camp libraries. The librarians of public libraries are already taking measures to have something worth while to offer to the returning soldiers. In many cases, they are mailing personal notices to the boys as they return home, cordially inviting them to the public library and stating its advantages.

The American Library Association is issuing reading lists for ex-soldiers on various subjects, vocational and other. Some of these are reading courses prepared in collaboration with the Home Education Division of the Bureau of Education, and for their successful completion a certificate signed by the Commissioner of Education is awarded. The former soldiers are advised to obtain the books for these courses from their public libraries, and the libraries will doubtless take care to have the required books available for readers. In some places a special room in the public library building can be provided as a meeting place for returned soldiers.

The libraries also in many cases have opportunity to assist in the rehabilitation of disabled soldiers by the provision of helpful literature, by guidance, etc.

The influence of the war has given an impetus to Americanization work, designed to weld together the diverse elements of our population into a single unified nationality. The public libraries and State library commissions had rendered effective assistance in this work for a long time previous to the war, and should devote even greater attention to it during the reconstruction period. The proper preparation of new citizens is a very important service to the country from any agency. There must be no relaxation of effort in any quarter until all the citizens have a knowledge of American institutions and are able to read, write, and speak the English language.

RURAL LIBRARY EXTENSION—STATE WORK.

In library extension the State has a part to perform which can not as yet be left to the smaller units of library administration—county, township, and city. In sparsely settled districts which are unable to maintain their own public libraries or to obtain service from neighboring libraries the State must supply books by means of traveling libraries sent out from State headquarters. The State must also furnish the stimulus and leadership which will push to successful completion campaigns to establish public libraries in new territory, and the State's field workers are then ready to assist in organizing and starting the newly-established libraries. The State central agency, with its prestige and authority, must back up the library movement everywhere, and see that no part of the State is left without adequate book service of some kind. When a complete system of local libraries has been established the State library should stand ready to supply unusual or expensive books to any local library desiring them for its patrons. It is the State library's duty to supplement in this way the resources of each local library, as is done in California, for example.

The laws of 33 States now authorize the formation and use of State traveling libraries. Especially effective work with traveling libraries was done during the past two years by the following States: Idaho, Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, New Jersey, New York, North Carolina, North and South Dakota, Vermont, Virginia, Washington, and Wisconsin.

The number of States now having State library commissions or their equivalent is 36.

RURAL LIBRARY EXTENSION—COUNTY AND TOWNSHIP PLANS.

During the two years covered by this survey, the extension of library facilities to dwellers in rural communities on the basis of the county as a unit continued to make progress in the various States which had already adopted this system. In addition, laws giving

State-wide recognition to the county library were for the first time enacted in 1917 by the legislatures of Indiana, Michigan, North Carolina, Pennsylvania, and South Dakota.

The following 22 States now have general laws providing for county libraries: California, Indiana, Iowa (by contract), Kentucky (by contract), Louisiana (for parish libraries), Maryland, Michigan, Minnesota (by contract), Missouri (by contract), Montana, Nebraska, New York (by contract), North Carolina (by contract), Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, West Virginia, Wisconsin, Wyoming.

The township as well as the county is actively employed as a unit of library extension in the States of the Middle West and in Minnesota, Iowa, and Nebraska. The township unit along with counties and municipal corporations is also recognized by South Carolina in its public library act of 1915, and is included in the Pennsylvania library act of 1917, together with counties, cities, boroughs, and towns.

Unfavorable conditions due to the war everywhere retarded the rate of library progress during 1917-18; nevertheless in general a substantial advance was made. With the conclusion of peace library extension is certain to be greatly accelerated.

The county library system of California continues to hold the lead in development for the entire country. On July 1, 1918, 42 counties out of a total of 58 in California had taken the necessary legal steps for establishing county libraries, and 38 of these libraries were in successful operation. The annual maintenance fund of the 38 libraries amounted to \$539,458.64. They contained a total of 945,856 volumes, had 2,890 branches, and served 1,549 school districts.

A county library bill which was introduced in the Illinois Legislature in 1917 failed of passage. Plans were immediately made to continue the campaign for county libraries by presenting a similar measure to the following session of the legislature in 1919.¹

During 1915-16 five new township libraries were established in Illinois, making a total of 38 in the State.

Indiana's new county library law went into effect July 1, 1917. Before September 1 of that year four counties—Switzerland, Union, Scott, and Jennings—had taken steps to organize libraries under the law. A year later the libraries of Switzerland and Union Counties were reported as making fine progress. Scott and Jennings Counties were delayed by small appropriations, but were expected to open their libraries soon. During 1918 Cass County was the only one to organize under the county library act. Other counties seem to have

¹ A county library law for Illinois was enacted by the 1919 legislature and went into effect July 1, 1919.

been deterred from library organization by the prospect of increased taxation, which was especially burdensome during the war.

The township basis of library organization is extensively employed in Indiana. The State now has 166 townships obtaining library service under the act of 1911, and 40 more served under the county library act of 1917. In 1918 10 additional townships voted support to city libraries in return for library service. Only a few which had been previously served discontinued their arrangements for this service during the year.

Since 1913 Iowa has a law providing that a town, township, school corporation, or county may contract with a public library near at hand for the free use of its books. No county has yet contracted for library service under this law, but 16 libraries now supply their books to their respective townships in return for grants from the public funds of these towns.

In a report to the Maryland Public Library Commission for the period March 1 to November 1, 1917, the field secretary of the commission states that in 14 counties visited during these eight months she found "eight free libraries and reading rooms which serve their respective counties; three of these have separate buildings and two receive assistance from taxes." This is exclusive of the Washington County free library at Hagerstown and the Frederick County free library at Frederick, which are both in active operation.

It was reported in July, 1917, that out of a total of 1,252 townships in the State of Michigan 147 were maintaining libraries, a decrease of 73 from the preceding year. The whole number of volumes in these libraries was 155,970; added during year, 6,124 volumes; total annual income of township libraries, \$92,191.71. One township in Houghton County voted an annual library tax of \$5,000.

The new Michigan County library law was approved by the governor in April, 1917.

There are now nine county libraries in Minnesota operating on the contract plan, whereby the county commissioners make an annual appropriation to the library in return for service. These counties are Anoka, Clay, Hennepin, Itasca, Meeker, Olmsted, Ramsey, Steele, and Washington. The appropriation has recently been increased in Anoka, Itasca, and Steele Counties, and in Hennepin County the system operating from Minneapolis has been enlarged to 62 stations. The county appropriation in Lake County has been discontinued, but a large number of people from the surrounding country still draw books from the former county library at Two Harbors. Ramsey County has been added to the list of county libraries since the last report. Here the White Bear library serves the rural parts of the county.

While in Minnesota only nine libraries have regular systems of county service, many others have extended their use to rural borrowers. For example, the Ortonville public library circulates books among the inhabitants of Big Stone County, and even across the State line in the neighboring section of South Dakota.

A committee of the Minnesota Library Association was appointed in 1918 to endeavor to obtain from the 1919 legislature such revision of the county library law as would make county libraries more active and permanent. The development of strong county organizations for war work was considered a good basis for this movement.

Two Minnesota libraries have contracts for service with adjoining townships. Graceville public library receives annually \$100 from the township and has 218 borrowers outside the village. Hibbing public library is under contract for service to the township of Stuntz.

In a number of places in Minnesota school and public libraries have been combined by authority of the State high-school board. School libraries are open to the public in eight localities.

The Montana county library law was enacted in 1915 and amended at the legislative session of 1917. The amended act provides that the petition for the establishment of a county free library shall be signed by not less than 20 per cent of the resident taxpayers of a county instead of 20 per cent of the qualified voters, as previously allowed. Other provisions of the revised law increase the powers of the county librarian for the organization and administration of the library.

Several counties of Montana have already availed themselves of the provisions of the act with very beneficial results both to the communities and their schools. The county commissioners of the following counties recently established libraries and employed librarians: Big Horn, Blaine, Chouteau (18 branches), Missoula (13 branches), Phillips (2 branches).

The Nebraska law authorizes the city council of any city, the board of trustees of any incorporated village, the county board of any county, and the electors of any township to establish a free public library, or to contract for the use of one, and to levy a tax to provide the necessary funds. Out of a total of 108 tax-supported libraries in the State in 1918, 12 were township libraries, 4 of which were established during 1917-18. There were no county libraries in the State.

In North Carolina there are now six libraries which serve their respective counties and receive in return funds from taxation, as follows: Good Will Free Library, at Ledger, Mitchell County; public library of Salisbury, Rowan County; public library of Washington, Beaufort County; public library and colored public library of Durham, Durham County; public library of Greensboro, Guilford

County. In 1917 the legislature enacted a law authorizing the board of county commissioners and the county board of education of any county to cooperate with the trustees of a public library in any city or town in extending the service of such library to rural communities.

In Ohio there are eight county libraries organized under general enactment, located in Erie, Greene, Paulding, Portage, Richland, Ross, Van Wert, and Wood Counties. In addition, there are the Hamilton County library at Cincinnati, established under a special law, and the Birchard library, an endowed institution at Fremont, which is free to the inhabitants of Sandusky County. Ohio also has 39 township libraries.

A county library law passed by the Ohio Legislature in 1917 was vetoed by the governor.

South Carolina has an act of 1915 which authorizes any county, township, or municipal corporation in the State to acquire, own, or operate a library or libraries, and to levy a tax of not exceeding 2 mills on the dollar for the support or acquisition of the same. At its 1915 session the South Carolina Legislature also passed an act establishing a public library at Beaufort for the people of the township, and incorporating the trustees of the Beaufort Township Public Library.

A county free library bill passed the Legislature of South Dakota by a unanimous vote at its 1917 session. This action shows gratifying progress in the growth of the library idea in the State, coming only four years after the establishment of the South Dakota Free Library Commission. With the close of the war a marked development of county libraries in South Dakota is expected.

The Texas county library law, enacted in 1915, was amended by the Legislature of 1917 in a way to facilitate the formation of county libraries. The amended act provides that on its own initiative or when petitioned by 100 or more voters of that part of the county affected, a county commissioners' court shall submit to the voters the question of establishing such library; a majority vote to decide. The original act required a petition by 25 per cent or more of the qualified voters, and approval by a two-thirds vote for establishment of a county library. The 1915 law prescribes an annual tax not to exceed 6 mills on the \$100 valuation of property in the territory affected, for the establishment and maintenance of a county library. The amended act allows a county tax of not exceeding 5 cents on the \$100 valuation for support of library. The law of 1917 also creates a State board of library examiners, to consist of the State librarian, librarian of the university and three other members; said board to pass on qualifications of county librarians.

The Wisconsin law provides that any public library may, under such rules and regulations as it deems necessary, open its services to nonresidents of the city, town, or village in which the library is situated. Any library board may contract with the board of supervisors of a county, or with the governing body of a town, school district, village, or city to loan books singly or in traveling libraries to the inhabitants of the governmental unit with which the contract is made, and the unit served may in return make an annual appropriation to the public library rendering the service.

At present, Wisconsin has only three county libraries, described as follows:

The Antigo Public Library and Langlade County have been in contract relations since 1909. The county pays \$850 annually to the general library fund. In 1918 there were in the county 28 library stations in operation and 382 books were sent to individuals by parcel post, in addition to the use of the city library by country people. County borrowers numbered 761.

Wisconsin also has one endowed county library, the Mabel Tainter Memorial Library at Menomonie. The wish of the donors was that the benefits of the library should be as great to the patrons living outside the city as to those living within, and accordingly the library circulates its books without charge throughout the county of Dunn, employing automobile service and parcel post. The library now has 1,179 rural borrowers. County schools are divided into two zones, the more distant teachers being allowed 25 books on an eight-week charge.

The extension work of the Milwaukee Public Library in Milwaukee County is carried on by contract with the county board under a law of 1913 which applies only to counties of 150,000 population or more. An amendment of 1917 provides for charging back to each town, village, or city in the county its share of the expense. The contract was based upon an estimated cost of 10 cents for each book circulated. The circulation in each town, village, and city is reported quarterly by the library to the county clerk, and the total amount of money due is paid by him into the library fund. Once a year the county board charges back to each town, village, and city its proper share of this total according to the circulation. By this plan each district in the county pays for the exact service received by it from the central library. There are 53 county stations, many of them in schoolhouses. A special appropriation is made for automobile service, which is facilitated by a system of good concrete roads. Frequent visits from the director of extension and his large personal acquaintance through the county are strong factors in the success of the station work. The county people also use the central library freely.

It is reported that a very large and increasing proportion of Wisconsin public libraries in general are already free to country people, who are using them to a considerable extent without being taxed for their maintenance. Library boards seem to be coming to realize that even for a purely material advantage—to secure the farmers' trade for the city merchants—it is worth while to encourage rural people to visit the city library. The Wisconsin Library Commission urges local library boards in general to open the resources of their libraries to all rural people without charge, and offers them support in this action by means of loans of books, traveling libraries, special groups, etc.

Under existing laws in Wisconsin, two taxing units for rural public library purposes are possible—the township and the county. In the more closely settled parts of the State, where there are several cities of about the same size in a county, with some rivalry between them, the town seems to be the natural unit. At least 12 libraries are now receiving such aid, in amounts varying from \$15 to \$200 from any one township. This aid has been voted for a number of years in several places, showing that the libraries have rendered satisfactory service. Where the interest of a whole county focuses in one center, a county library is preferable to other plans.

The Wisconsin County traveling library law provides in brief that a county board of supervisors may establish a library board of five members, who shall appoint a supervising librarian at a salary limited to \$50 per year. An appropriation for traveling library work may be made from the county general fund, not to exceed \$500 for the first year, and not to exceed \$200 for any year thereafter. The county may also receive bequests or gifts to be used for its traveling library system.

Fourteen county traveling library systems are now in operation under separately organized county traveling library boards. In 11 of these counties the librarian employed to take charge of this work is the public librarian at the county seat; in one county, the county superintendent of schools; in the other two, private individuals with offices in the court house. The funds by law allowed are found inadequate to do justice to the work, since the librarian's salary is limited to \$50 and the annual expenditure for maintenance of library may not exceed \$200 after the first year.

At the 1918 meeting of the Wisconsin Library Association a committee on county libraries made its report and presented a draft for a new county library law. A discussion followed touching the whole subject of rural extension. A committee was then authorized by the association to study the subject further. This new committee is to report at the 1919 meeting of the Wisconsin Library Association.

The various administrative units for library extension were discussed at the Louisville conference of the American Library Association in 1917 in the following papers: The State as a unit for library extension, by Minnie W. Leatherman Blanton; The county as a unit, by Harriet C. Long; The library district as a unit, by John A. Lowe; The township as a unit, by Mayme C. Snipes. These papers may be found in the Proceedings of the American Library Association for 1917, pages 230-237. The subject was also discussed by M. S. Dudgeon at the Pasadena conference of the American Library Association in 1911, in a paper entitled Administrative units in library extension—State, county, township, city, published in the American Library Association Proceedings, 1911, pages 130-138.

LIBRARY SURVEYS.

During the past few years in the surveys made of the educational systems of a number of States and cities, a tendency has been manifest to give increasing recognition to the library, both school and public, as an educational factor of importance. Besides inclusion of the library as a feature of the general educational surveys, a survey devoted entirely to the State-supported library activities in Washington has been made by the State library advisory board to and at the request of the Washington State library commission and its report issued as a public document of 134 pages at Olympia in 1917.

This report is a valuable piece of work and is worth careful study for its treatment of library problems which are typical of other States besides Washington.

The State library advisory board of Washington was appointed in 1915 for the purpose of advising the State library commission regarding the control of the miscellaneous department of the State library, the traveling libraries, and the State historical library; also to give advice and counsel to all free libraries in the State and to communities proposing to establish them. In addition, the advisory board was required by law to cooperate with advice and assistance in the performance of certain duties of the library commission and the State librarian, and to report on the desirability of certain proposed improvements, such as a library organizer, special publications, archives work, development of interlibrary loans, etc. Before offering advice and recommendations on these matters the advisory board felt it necessary to obtain the fullest possible information on which to base its proposals, and consequently undertook a State-wide survey of existing conditions as regards libraries.

The membership of the advisory board consisted of the State superintendent of public instruction, of two persons appointed by the

governor upon his own initiative, and of two other persons to be appointed by the governor, one representing the Washington State historical society and one representing the State federation of women's clubs. John B. Kaiser, librarian of the Tacoma public library, was made president of the board. The State librarian is ex officio secretary.

For the actual work of the survey the board sought to associate with itself from within the State specialists on various phases of library work and educational problems generally. In addition, wherever possible, the superintendent or equivalent officer of each institution to be surveyed was invited to join in the work as a committee member.

The survey was organized into eight divisions, each in charge of a special committee, as follows: (1) The State library, (2) library extension, (3) county and rural school work, (4) State educational institutions, (5) library training, (6) libraries in State charitable, penal, and reformatory institutions, (7) library work with foreigners, and (8) library legislation.

As a result of its survey, the advisory board found that primarily the State-supported library activities in Washington need greater financial support, a greater measure of responsiveness to visible needs and opportunities on the part of the library commission, and an infusion into the service of workers whose professional ability, personality, and capacity for leadership will create the desired responsiveness in the commission and inspire in the legislature that confidence which deems it a privilege to cooperate.

For greater efficiency in library extension, the advisory board recommended the employment of a State library organizer and field worker, and the allowance of money grants to small public or school libraries distributed in a manner analogous to the New York State plan. Insistence on at least one year's attendance in a training school for librarians was advised as a minimum requirement for all additions to the technical staff.

Suggestion was made for a conference of representatives from the State university, State college, State historical society, State library, traveling library, and library commission, to devise a cooperative program of library service, and to consider various problems, including the following: In view of the distance from the traveling department to eastern Washington, should the State college through its extension division or library attempt similar service, and should the State have a second State library organizer and field worker stationed at the State college?

The State is also urged in the report to participate more effectively through its library service in the increasingly important work of Americanization.

The board recommended the immediate passage of a county library law making possible the establishment of county libraries in Washington.

The board considers obviously desirable the consolidation of the library commission with the advisory board, or the elimination of both and the transfer of their combined duties to the State board of education.

The report of a survey of State Higher Educational Institutions of North Dakota, made under the direction of the United States Commissioner of Education, which was published as Bulletin, 1916, No. 27, of the Bureau of Education, devotes Chapter IX, of 9 pages, to the State library commission and the activities within its field. This chapter outlines the work now being carried on with suggestions for extension and improvement. The survey finds that evidently there is need for considerable increase in the appropriations for all this library commission work if it is to accomplish for the State what was originally intended and meet fully the ever-larger demands made upon it.

After discussing the organization of the State library commission reference and field work, the survey passes on to the subject of institution libraries, meaning those of the university, the agricultural college, and the normal schools. These libraries may, to some extent, loan their books beyond their walls, but should avoid all effort to cover the general field of the library commission. Outside service should be only secondary, and to a large extent only supplementary to the work of the library commission, and in this service each institutional library should have its own definite field. In North Dakota, under present conditions, extensive courses in library work at more than one institution are not justified, but there is need for instruction in the simplest and most elementary principles and practice of library work for those who have the care of the smaller libraries, and especially for teachers in the public schools who are responsible for the selection and care of books in the school libraries. Such instruction should be provided at the university and normal schools, and especially in the summer sessions of these schools. In order to secure uniformity, these courses should be planned and the work inspected by the secretary and director of the library commission.

The report expresses approval of the very liberal laws in North Dakota facilitating the establishment and maintenance of city, village, township, and school libraries. However, less than 10 per cent of the people of the State now have easy access to any adequate collection of books. To meet fully the needs of the people will require libraries larger than can be maintained by the small units of school

district, village, and township. It will require the cooperation of county and State.

The survey commission recommends that the legislative assembly of the State be requested to make legal provision whereby counties may establish and maintain libraries, supported by taxes levied on all the taxable property of the county, managed by trained librarians, having branches in all the more important towns and villages of each county, and using the schools as distributing centers. It should not be difficult for any of those counties having each a population exceeding 10,000, which constitute more than half the total number of counties in the State, to provide the funds for a building, books, and their proper care and administration for a library of 30,000 volumes. A library of this number of carefully selected books would be amply sufficient for any county in the State, especially if all the county libraries were supplemented by the State educational reference library enlarged for this purpose.

The survey concludes that such a system of county libraries would increase in large measure the value and effectiveness of the State's system of public education. It would be especially helpful to those, the great majority of the people of the State, who live in the open country and in villages and small towns, and most helpful of all to those living in remote, isolated farm homes. On Sundays, on rainy and snowy days when little or no work can be done outdoors, and on long winter evenings—very long in this northern latitude—much time for reading can be found by children and older people alike in the rural districts. The cost of upkeep of the libraries when once established will not be large. The total cost for all the counties would probably not exceed 6 or 7 per cent of the total annual expenditures for public schools.

Various recent surveys of city schools give attention to school libraries and to the educational work of the public library. Among these may be first mentioned the Public School System of San Francisco, Calif.; a Report to the San Francisco Board of Education of a Survey made under the Direction of the United States Commissioner of Education, published as Bulletin, 1917, No. 46, of the Bureau of Education.

This survey report states that an examination of the library equipment of 12 representative grammar schools and elementary schools of San Francisco showed none of these schools to be properly supplied with supplementary readers and other library facilities. Teachers and schools can not do effective work under these conditions. A liberal allowance of money for supplying needed reference books and libraries throughout the entire system of schools is strongly urged by the survey committee (pp. 217-218).

The survey committee also recommended the establishment of a fuller, more effective cooperation between the schools and the San Francisco public libraries. According to the report, the library officials manifested eagerness to cooperate with the schools.

In the chapter on high schools, the San Francisco report says (p. 279) :

In addition to well-equipped laboratories, gymnasium, auditorium, and lunch room in each high-school building, there should be also a well-equipped library, in charge of which should be a well-trained librarian. Not one of the high schools at present has either a well-equipped library or a librarian. It is quite as necessary that both the library and the librarian be provided for in all these schools as it is that laboratories, gymnasiums, lunch rooms, and auditoriums and well-equipped teachers shall be provided.

The importance of securing the cooperation of the public library with the schools in the provision of materials relating to community life is brought out in the report in the chapter on Civic Education (pp. 363-364). This should include the publication of bulletins, or leaflets, or a journal of some kind, covering in the course of time every phase of the life and growth of the city and State in a form and language suited to the use of public-school pupils. All published materials relating to the city and State should be made available by the library; and more important still, there should be special attendants familiar not only with these materials but also with the course of study in the schools, who should have ready at hand the materials needed by classes as the work develops throughout the term, and who should directly assist pupils and teachers in the use of this material.

A room in the library building should be set apart for the use of pupils in their study of this material relating to the community, a room where exhibits of pictures and other illustrative materials should be on display. It might be known as "the San Francisco room." The library may also be the proper agency for the collection of slides and films illustrative of community conditions and activities, which should be lent to schools, social centers, parents' associations, or local improvement associations as needed. The possibilities in this line are almost unlimited.

The survey report also observes in this chapter on Civic Education that in San Francisco the working relations between the public library and the schools have been developed only to a very slight extent. The library does not seem to be in any real sense a part of the working equipment of the schools, and with few exceptions is not recognized as such by teachers. More branch libraries are needed; but more especially there is needed closer cooperation between library and teachers in regard to subjects taught at a given time in the schools and materials relating to these subjects available in the library. More

definite and systematic provision should also be made for working collections of books to be lent to schools for short periods of time as needed.

Individuals and private agencies have opportunity to cooperate with the schools and the library in the collection of local materials for community study. There are many individuals and various organizations in San Francisco who by coordinated effort could give impetus to such extension of the usefulness of the public library. Efforts in this direction should be made in full knowledge of the aims and methods of the schools, and the schools should have a supervisor or other representative through whom such cooperation could be made effective.

In connection with the subject of education of the immigrant, the report says (p. 564) that a force possessing many latent possibilities as a factor in Americanization is the public library. At the time of the survey a magnificent new building for the public library was well underway in the civic center, and since then has been completed and opened. Definite plans for cooperation between the library and the school were already in operation. For example, each of the seven branch librarians had to visit all schools in her library district. Two story-telling hours per week, in charge of branch librarians, were conducted in each branch, one for older and one for younger children.

In the survey of the St. Louis public schools, of which the report was published in 1917, the section on high schools¹ was written by A. B. Meredith, deputy commissioner of education of New Jersey. He reports finding in each school a library under the special supervision of a teacher assigned by the principal. The rooms were admirably lighted, conveniently located, and fairly well stocked with books, especially for work in English and history. During the day different teachers are assigned to library duty, so that at least seven different teachers a day are administering this department. Naturally these teachers are not all experts in library administration, while the expense of this arrangement is an item of considerable magnitude. The important consideration is the educational value which may come to the pupils from expert library service, while leaving regular teachers free to supervise study periods. A further question is the value of a teacher's time in comparison with that of a librarian. Without criticizing the service now rendered by the teachers in charge, it is fair to say that to put trained librarians in charge of the school libraries would add immensely to the effectiveness of this department. A plan of cooperation with the public library of the city is advised. With one person in charge throughout

¹ Survey of the St. Louis Public Schools, vol. 3. High schools, pp. 28-29.

the day, the library could remain open after school hours and be of increased usefulness to the pupils.

In most school libraries an absence was noted of books of reference in the sciences, practical arts, and mathematics, and also of departmental and general magazines. It would appear that the library is considered merely as an adjunct to the English and history departments, and not as constituting a general laboratory of research and study and related to all departments of instruction, which is its true function.

The report of the school survey of Grand Rapids, Mich. (1916), brings out the fact that that city enjoys to a highly unusual degree the educational cooperative work of the city public library. The library is governed by a board that is sufficiently independent of those who control the school affairs proper, and yet is sufficiently linked to the educational organization to secure thoroughgoing co-operation. Of the six members of the board of library commissioners, five are elected by the citizens at large, including women, on a nonpartisan ballot, and the sixth member is the superintendent of the public schools, *ex officio*. The title to all property of the library rests with the board of education. For more than 20 years the city library has been placing deposit and branch libraries in all of the school buildings of the city. The legally connected and closely cooperating boards of education and of library are thus by means of a single service systematically caring for the reading opportunities of all the city's people, both juvenile and adult.

A good-sized reading room is now supplied for the branch libraries by the board of education in about one-third of the regular school buildings of the city; and such a room is to be provided in each of the new buildings. The school board supplies heat, light, and janitor service, while the library board supplies the books, periodicals, card catalogues, and the library staff. The library board also conducts a weekly story hour during the season, a course of free lectures for children and adults through the year, and the systematic instruction of the children in the uses of the library. The branch library rooms serve as reading rooms for the children during the school day, and during day and evening throughout the year are open to the use of the adult community. The branch libraries are equipped with from 1,500 to 3,500 volumes, of which about half are for children and the rest for adults. Each is supplied with 25 to 30 current periodicals in the English language, and if required, with special periodical literature in foreign languages, adapted to the population of the district. The use of the books in these branch libraries is carefully observed, so as to keep only "live" books upon the shelves, and to return any unused books to the central library.

In most of the schools in which branch libraries have not been opened, there are located what are termed deposit libraries, largely determined in size by the demands of the pupils. Books currently used are retained, and unused books are returned, thus regulating the size of the library automatically. In addition to the relatively permanent library sets already mentioned the public library provides traveling library sets on special topics in American history and other subjects. These traveling libraries contain from 25 to 200 volumes, and may be kept at the school building by a teacher from four to six weeks for collateral reading by the pupils.

The library employs a number of ways of encouraging the children to use the books supplied. A weekly story-hour is held from October to March at the central library, and at each of the branch libraries. Monthly bulletins are issued calling attention to all new books of various kinds. Eight or ten public lectures are provided each year for adults and children at each of the various school branches. Books for collateral reading are recommended on the subjects of these lectures.

A further method of stimulating reading is the organization of reading clubs in the schools. A yearly average of 19 books per child was read by the pupils in one school building, the children of all grades, including the kindergarten, being counted in taking this average. Many children read a book a week, the habit formed during the school year tending to persist during holidays and vacation seasons. There are some children who read two books a week through the year. Since children should be early trained for rapid silent reading, this constitutes one of the most effective possible methods for providing the training.

The books for the schools are carefully selected by trained assistants and reports regarding their use are received from principals and teachers, who are also requested to send suggestions regarding material desired to the library. This cooperative method of choosing new books draws upon the best information and experience of both librarian and teacher. The library also informs itself regarding the children's reading from its annual conference on children's reading, in which both teachers and parents are represented.

The report concludes:

After school days are over, the most important continuing educational influence is the reading habit. Frequent cases in Grand Rapids show that full and effective education through library reading is a type of education that does not lapse when school days are over. It is therefore recommended that library work through the schools shall continue and expand.

The Report of a Survey of the School System of St. Paul, Minn., by the Survey Commission, St. Paul, 1917, contains a section on the cooperation of the public library with the schools (pp. 47-51).

The subject is covered under the following headings: General, central library service, school libraries, class-room libraries, supplementary reading, instruction in use of libraries, and library publications. The last named include publications giving information regarding the library for teachers and pupils, reading lists, and a projected library manual for high-school pupils.

The Report of the Educational Survey of Elyria, Ohio, made under the direction of the United States Commissioner of Education (Bulletin, 1918, No. 15), contains sections on the high-school library (pp. 106-107), and on the public library (pp. 204-205). A good general presentation of the necessity and utility of an adequate school library and of the value to the pupils of training in library methods is given on pages 119-122 of The Public Schools of Columbia, S. C.; a Report of a Survey made under the Direction of the Commissioner of Education (Bulletin 1918, No. 28). According to this report, "Learning how to use a library—that is, learning how to use the tools of study—should be begun well down in the grades and continued throughout the entire school course."

Besides the surveys already mentioned, the reports of the following contain material relating to the library as an educational factor: Report of the Denver School Survey, 1916; Educational Survey of the Public Schools of Brookline, Mass., 1917; Educational Survey of Janesville, Wis., by the State department of public instruction of Wisconsin, 1918, the last with considerable fullness.

HIGH-SCHOOL LIBRARIES.

Standardization of requirements for high-school librarians by State action made substantial progress during the biennium.

The following law, which became effective in July, 1917, was passed by the California Legislature:

No librarian shall be employed for more than two hours a day in any high school unless such librarian holds a high-school certificate, or a special teacher's certificate in library craft, technique, and use, of secondary grade work, granted in accordance with the provision of this code. Such librarians shall rank as teachers and shall be subject to the burdens and entitled to the benefits of the public-school teachers' retirement fund, on the same basis as other teachers.

In Oregon the State educational department recommended to its superintendents that in any high school employing as many as 10 teachers, 9 of these should be used on the regular teaching force and the tenth teacher should be a trained librarian who may give her full time to supervising the work of the high-school library. Several cities in Oregon have adopted this plan. The school librarian is chosen by the city or county librarian after consultation with the city superintendent of schools. She is under the immediate supervision of the city librarian, who directs the library work both in the

high school and in the grades. The city superintendent cooperates by requiring his teachers to follow the librarian in matters affecting the reading of the pupils. This work has so impressed many school boards that in the smaller high schools one teacher-librarian is employed who gives half her time to teaching and the other half to library supervision.

The State department of public instruction of Wisconsin sent the following notification to the high-school principals of the State:

Beginning with the school year 1919-20, it is expected that every high school in the State will employ a teacher-librarian who has had the library training represented by the course for teacher-librarians in the University of Wisconsin, or its equivalent. Principals of high schools should plan to meet this requirement by that date or sooner if feasible.

Larger high schools in Wisconsin are expected to have high-school librarians who have taken the full course in a standard library school.

The State education department of New York State, through its division of school libraries, sent out under date of May 1, 1918, the following ruling concerning the State certification of high-school librarians:

Inasmuch as a district quota can not be allowed for the service of a school librarian unless said librarian is a holder of a certificate, it has been decided to issue certificates as follows:

(a) Permanent certificates will be issued to those who are college graduates, and also graduates of library schools approved by the regents of the University of the State of New York.

(b) Five-year certificates will be issued to graduates of approved library schools, and after five years' satisfactory service a permanent certificate will be issued to such persons.

(c) Three-year certificates will be issued to graduates of an approved short library course of not less than six weeks, provided that such graduates have had at least two years of library experience.

(d) One-year certificates will be issued to graduates of a short library course of not less than six weeks provided they have had one year's library experience, and to graduates of approved colleges and normal schools who have had no library experience provided they have had one or more sessions of the State summer library institute conducted by the State library and are certified as having done satisfactory work.

(e) Certificates may be renewed for a like period provided there is satisfactory evidence that acceptable work has been done during the period for which the original certificate was granted.

For service in cities of the first and second class, only permanent certificates will be accepted in New York State.

In 1917, the University of Missouri issued a bulletin containing observations on high-school library conditions and suggestions for improvement, based on information contained in replies to a questionnaire sent to all the high schools accredited by the university. This bulletin suggests a standard of adequate library facilities for the ac-

credited high schools, following the norms set up in the report of Mr. Certain's committee to the North Central Association of Colleges and Secondary Schools, which is outlined in the following pages.

In a number of States, State supervisors of school libraries, State inspectors of high schools, and State high school visitors from the universities continued effectively to devote their efforts to the improvement of high-school library conditions.

An important event was the adoption by the North Central Association of Colleges and Secondary Schools, at its meeting in Chicago, March 21-24, 1918, of a report on Standard Library Organization and Equipment for Accredited Secondary Schools of Different Sizes, prepared by the library committee of the commission on unit courses and curricula of the North Central Association, under the chairmanship of C. C. Certain, of the Cass Technical High School, Detroit, Mich.¹ The report was also adopted by the department of secondary education and the library department of the National Education Association in joint session at Pittsburgh, Pa., July 3, 1918, as a statement of national standards in high-school library development. The period assigned for attaining the standard prescribed in the 18 States of the Middle West represented in the North Central Association is five years from March, 1918, and the movement to this end is commencing at once.

This report suggests a practical working standard for the following types of high schools: (a) Junior high schools, (b) high schools with enrollment below 200, (c) high schools with enrollment from 200 to 500, (d) four-year high schools or senior high schools with enrollment between 500 and 1,000, (e) four-year high schools or senior high schools with enrollment between 1,000 and 3,000. It defines the requisites of a standard library organization as (1) appropriate housing and equipment of the high-school library; (2) professionally trained librarians; (3) scientific selection and care of books and other printed matter, and the proper classification and cataloguing of this material; (4) instruction in the use of books and libraries as a unit course in high-school curricula; (5) adequate annual appropriations for salaries and for maintenance, for the purchase of books and other printed matter, for binding, supplies, etc.; (6) a trained librarian as State supervisor of school libraries either through the State department of education or the State library commission.

The report proceeds to emphasize the importance of having the library room centrally located in the school building, scientifically planned, and well equipped. The room should be of adequate size,

¹This report is published in North Central Association of Colleges and Secondary Schools, Proceedings, 1918, pp. 35-77; National Education Association, Addresses and Proceedings, 1918, pp. 601-719. It is also issued as a separate pamphlet.

attractive in its appointments, and provided with the apparatus of vertical file, bulletin boards, illustrative material, and other modern accessories to the efficiency of a library. Since the function of a high-school library is to inspire a permanent love of reading, the library bookshelves should be open, and the pupils encouraged to read for recreation and pleasure, not merely to consult books for reference and for supplementary and collateral study.

The report sets forth the desirability of having a full-time trained librarian in the larger high schools as a regular policy, and also in the smaller schools whenever possible. The librarian in the high school should combine the good qualities of both the librarian and the teacher and have the personal characteristics of enthusiasm, power to inspire, and teaching ability. A librarian who is a graduate from college and from a recognized library school having at least a one-year course is urged upon all schools of 500 pupils and over, and a staff of two or three library school graduates is recommended for the larger high schools. The high-school librarian is entitled to rank with the teachers of the school as a regular officer of instruction. In high schools having heads of departments the librarian should be made head of the library department, with status equal to that of heads of other departments, as has been done in the Schenley High School, Pittsburgh. The salary of a high-school librarian should be adequate to obtain a person with the proper qualifications, not lower than that of the English teacher, but higher if necessary.

The educational work of the high-school library may be summarized as follows:

(a) Reference: Helping teachers and students to find suitable material on special topics, notifying teachers of new books and articles along professional lines, looking up answers to questions which have arisen in classroom or laboratory, preparing suggestive reference reading along the lines of the course of study.

(b) Instruction: Systematic instruction of students in the use of reference books and library tools, such as card catalogue, indexes, etc., by means of lectures, quizzes and practical tests—emphasis to be given in this instruction to the relationship of the high-school library and the public library, and the relation of a library to life outside the school.

(c) Educational and vocational guidance: Cultural and inspirational work in widening the interests of the students and in cultivating a taste for good reading. Methods to this end are posting interesting material on bulletin boards, compilation of reading lists, organization and direction of reading clubs, and personal guidance of the reading of individual students. The librarian should also cooperate with vocational counselors in aiding students in the choice of vocations.

One of the following plans should be selected in giving instruction in the use of books and libraries:

1. Devote a minimum of three recitation periods per year in each English course to graded instruction in the use of books and libraries.

ries. This instruction should be given by the librarian and credited as a distinct requirement for graduation. The credit should be recorded as a grade in library instruction.

2. Establish "Instruction in the use of books and libraries" as a unit course giving a minimum of 12 lessons a year to this work. In view of the fact that efficiency of instruction in any department depends upon an intelligent use of the library, the following schedule for the 12 lessons seems practicable:

In English, three lessons a year; in history, three lessons a year; in Latin, one lesson; in Spanish or French, one lesson; and in the sciences and manual training together, four lessons.

Training in library use should include the following: The use of books for educational guidance, as tools, and as a means of recreation, amusement, and inspiration; *esprit de corps* in handling books as public property; and also the subject of the relation of high-school and public libraries. To relate the work in the high-school library to that of the public library, and to make clear the uses to students, after school days are over, of an institution which should be a factor in their future mental development, classes should be taken to the public library, where its book resources, rules, methods, departments, catalogue, and support can be briefly explained by one of the staff. This should be done in the small towns as well as in the large cities.

The maintenance of the school library should not depend upon incidental sources, such as school entertainments and "socials," although funds raised in this manner may well be used to purchase accessories to the regular library equipment. The library deserves an annual appropriation of sufficient amount in addition to salaries to provide means for the necessary correlation with all other departments. For books alone a minimum of 50 cents a student is needed annually. Not less than \$40 a year for magazines and newspapers is needed, even in small high schools.

Emphasis is also laid in the report upon the employment by the State department of education, either by itself or in cooperation with the State library commission, of a trained librarian to act as supervisor of all public-school libraries in the State—normal, high, elementary, and rural. Expert supervision of this sort will raise the standard of library efficiency in schools of all grades and sizes. In States having no supervisors of libraries, high-school inspectors should make note of library conditions in schools visited and embody the information in their reports.

The evolution of a proper type of library for junior high schools has lately received careful consideration from school librarians at their conferences and elsewhere. The report of the library committee of the North Central Association and the National Education

Association also accords this problem a conspicuous place. It says that the junior high-school library should be organized in such a manner as to meet the needs of boys and girls in grades seven, eight, and nine, and contain materials suitable for this purpose. This library should be sharply differentiated from the library in the senior high school, not only as to the character of books selected, but also as to the kind of service expected from the librarian. It should contribute to more varied and extensive interests, for, unlike the library of the senior high school, the library of the junior high school does not require the kind of material and the character of service necessary to close specialization in particular subjects.

The librarian of the junior high school should be a student of children and adolescent psychology, and should have sufficient culture and professional training to select books discriminatingly from the standpoint of the appropriateness and educational value of their subject matter, also to supervise intelligently the pupils' reading.

CHAPTER XXI.

EDUCATIONAL WORK OF THE CHURCHES.

CONTENTS.—Education under religious auspices, by B. Warren Brown—Christian day schools of the Lutheran Church, by W. C. Kohn—Education in the Methodist Episcopal Church, by Henry H. Meyer—Southern Baptists and education, by J. W. Cammack—Educational work of the Protestant Episcopal Church, by William E. Gardner— Latter-Day Saints' schools, by Horace H. Cummings—Roman Catholic schools, by Patrick J. McCormick.

EDUCATION UNDER RELIGIOUS AUSPICES.

By B. WARREN BROWN,

Survey Secretary, Council of Church Boards of Education.

In previous reports to the Bureau of Education it has been impossible to give any comprehensive view of Christian education in the United States because, while the religious forces expended have been very great, there has been no unity or system worthy of the name. Only independent and scattered statements from a few religious organizations have been available. It is not claimed that the material included here summarizes the work of a perfected system of religious education, but there are many evidences of a growing group consciousness among the educational activities of various churches. The Council of Church Boards of Education is a conspicuous example.

The lack of proportion in our present aggregate of church institutions points significantly to the fact that their development was genetic rather than logical. Christian colleges existed before State institutions were founded; indeed, some State universities were originally under denominational control. We have inherited, therefore, a curious alternation of church and State control in higher education. Religious schools were strongly intrenched before any system of common or secondary education had been devised, so that the church system is very highly developed at the top, but depends chiefly on the State for primary and secondary training. Again, various denominations, each acting independently, founded and endowed schools, taking into account mainly their local and denominational situations, but without considering the relation of school to school or of one church organization to another. The result has been an over supply of church institutions in some parts of the country and inadequate facilities elsewhere. Out of these conditions is growing

at the present time a new consciousness of the relationship of one religious body to another in the educational field, of the higher to the lower grades of religious instruction, and of the combined church activities to the public-school system. This awakening is a most encouraging sign of progress. It is not a disparagement of the past. The traditions of Christian education in this country are the object of intense gratitude and pride. This new consciousness is a part of the growing "time-spirit" in which we are seeing things in larger units and closer relationships.

EXTENT OF THE PRESENT SYSTEM.

Out of the total population of 103,000,000 people, there are in the United States 40,515,126 communicants or members of some religious faith. As only 143,000 are members of Jewish bodies, practically all of these are in Christian organizations—some 15,000,000 Catholic and the remainder Protestant. Church population is usually estimated at more than twice the membership, so that this may be regarded as essentially a Christian country, in which the religious forces are powerful.

Institutions.—The educational system controlled by these forces is estimated as follows: 195,276 Sunday schools, with 19,951,675 pupils; about 7,500 parochial schools, with 1,626,123 pupils (90 per cent Catholic); 1,586 high schools or academies, with 103,829 students (55 per cent Catholic); 41 junior colleges, 395 four-year colleges and universities, with a total attendance in 1916-17 of approximately 120,000 students; and 164 schools of theology. In addition to these definite grades of instruction there are many miscellaneous institutions conducted in part by boards of education and in part by mission boards. The activities of 10 denominations alone out of the Protestant group include 13 training schools; 11 seminaries (ungraded), for women; 107 orphanages, with grade-school instruction; 228 schools for Negroes; 3 for Indians; and a score of other miscellaneous institutions. To these should be added, also, the "mountain white" schools conducted by the churches and the night schools for immigrants under the Young Men's Christian Association.

However, church interests in education are by no means as coherently related as might be inferred from the above statements. There is comparatively little connection between the higher and lower branches of this system. Up to the present time the Sunday school has had only a slight relation to the church preparatory school, college, or seminary. The Lutherans, for example, have many weekday religious or parochial schools for children, but relatively small interests in the field of higher education. Many Protestant denominations have large holdings in the field of higher education, but prac-

tically no week-day schools of secondary and primary grade. It is apparent, therefore, that our religious education is dependent on the public-school system for any connected or logical sequence of instruction.

Cooperation with public schools.—As church institutions by no means cover the educational field, there has been a growing disposition to provide religious instruction for the youth of the church who attend State institutions. It is an acknowledged fact that more students of leading denominations go to the State universities than to their own church colleges. It has been further demonstrated this year that between 70 and 75 per cent of the students now in State universities are members of some church. Obviously, the churches having shut out religious instruction from these institutions by law are under obligation to supply this teaching independently. The situation is being provided for along three definite lines:

(1) Paid secretaries are maintaining the Christian associations in State institutions. The membership thus secured averages about 40 per cent of the student body.

(2) Religious workers are placed in State institutions by the different denominations. In this way \$57,000 was spent last year by four denominations.

(3) Bible chairs or schools of religion are maintained. By means of these credit is allowed for religious instruction properly supervised and nonsectarian.

The Catholics maintain chapels, the Episcopalians church clubs, the Disciples and Methodists Bible chairs, and the Presbyterians religious workers.

Movements are under way, also, to cooperate with the public-school system in the field of secondary education. The development of a graded system with teacher training in the Sabbath schools and particularly the framing by agreement among the denominations of satisfactory courses in the materials of religion have made possible the crediting of this work in the high-school curriculum. This plan in various forms has been tried with considerable success, especially in North Dakota, Colorado, and the State of New York.

A further attempt to correlate church and State education is the promotion of week-day religious instruction. The most interesting efforts of this sort to make church instruction somewhat more systematic than is possible in the Sabbath schools, adjusting the hours and program to the schedule of the public schools, are found in Malden, Mass., and Gary, Ind. A movement similar in effect is the daily vacation Bible school project, which has developed extensively during the past two years. The usual course is a daily session covering five weeks. During 1917 there were 600 schools in 97 centers, with an attendance of 64,000 pupils, in addition to separate schools

conducted by the Presbyterian denomination alone. This organization has been somewhat stronger in 1918 and in some localities the Presbyterian and international associations have joined forces.

Coordinating agencies.—For the most part, church interests in education have grown spontaneously rather than through outside control and supervision. During the past few years, however, there has been a steady trend toward centralization. Twenty of the leading denominations now have definite boards of education and others are considering closer organization. Many of these boards are highly systematized and exert a powerful influence for education in their constituency. Their combined budgets for 1918 amounted to \$1,500,000.

Recognizing the fundamental unity of their interests, these boards in 1911 united in a Council of Church Boards of Education. In 1914 the council organized the Association of American Colleges, which now numbers 230 standard institutions. Several denominations also have separate associations of their own colleges. The Council of Church Boards of Education, working in conjunction with the Association of American Colleges, the Christian Associations, the organization of Church Workers in State Institutions, the Religious Education Association, the International Sunday School Association, and the Commission on Christian Education of the Federal Council of Churches, is now in a position to coordinate more fully the large educational interests of Protestant bodies. It is, of course, recognized that the Catholic interests have long since been highly organized.

HIGHER EDUCATION.

Professional training.—Although some universities under denominational control have many professional departments, the church makes no claim to the field of technical professional education other than for the ministry and missions. In this field it has a virtual monopoly. Replacing the present ministry and providing for reasonable growth calls for the addition of at least 4,500 ministers each year. To train this number of recruits there were, in 1915, 164 theological schools. The Protestant schools offer, as a rule, three-year courses, and the Catholic schools six-year courses. Some 86 Protestant seminaries maintain a reasonable standard of professional education, the remaining Protestant schools offering work of somewhat lower grade for foreign-speaking candidates. Sixty-seven seminaries of eight leading denominations have total assets, including plant and endowment, of \$31,295,000, or about one-half of the total assets of all the seminaries in the field. Correspondence schools and summer institutes, especially in the South, provide a partial substitute for seminary training. There has also been a

marked increase in the loan funds at the disposal of seminaries and boards of education to assist needy students. However, the number of students graduated by all theological schools approximates only 2,500 per year, or about one-half the annual demand. The remainder must be supplied from students who fail to complete the seminary course or enter the ministry directly from college. The problem of securing professional religious workers is consequently a problem of increasing attendance at the seminaries. The war greatly complicated the situation by cutting down seminary attendance 12 per cent during the past year, and in particular reduced the number in the entering classes. Losses during the coming year will be even heavier. With all due allowance for consolidation of churches and a larger average congregation per minister, the reduction of the number of trained leaders at a time when the supply is only 50 per cent adequate constitutes a serious menace to the future strength of the ministry.

The question of the proper content of theological instruction was greatly complicated by the war. During the past few years there was a uniform demand among all churches for a highly trained ministry and the standards of ordination in the various communions was steadily raised. There is no disposition at present to lower standards, but the desire is widespread to make theological training respond more directly to the essential needs of the time. Two important conferences on this subject were held during the year, the former including representatives of all Baptist seminaries and the latter a more general conference called in August, 1918, by Harvard University.

Liberal arts colleges.—At the present time the field of liberal arts is evenly divided between church and private institutions on the one hand and State institutions on the other. The former have a larger attendance and a greater number of schools, while the latter are growing more rapidly. At present there are affiliated with the various church boards of education 333 colleges and universities, 41 recognized junior colleges, and 28 other colleges for Negroes. The total assets of these schools, together with Catholic institutions, are in excess of half a billion dollars and their combined income more than \$25,000,000 per year. During the past four years their gifts for plant and endowment averaged almost \$30,000,000 per year. By far the largest educational interests are controlled by the Presbyterian Church in the United States of America with 64 colleges, the Methodist Episcopal Church with 44 colleges, the Baptists with 22 in the North and 38 in the South, and the Congregational Churches with 41 colleges and universities, including those historically related to the denomination. The total attendance of these, together with 62 Catholic colleges, was 120,000 students in 1915,

as compared with 83,000 liberal arts students in 93 State institutions for the corresponding year. The effect of the war, however, was to reduce college attendance on the average 18 to 20 per cent below the total for 1916-17. This reduction affected State and private institutions equally. The loss in the beginning classes, however, was somewhat heavier in church than in State institutions. Thus far it has not been necessary to close the doors of any church colleges on account of the war, although some 10 or 12 preparatory schools have been discontinued. By the utmost economy, coupled with unusual exertions in the raising of emergency funds, colleges have been able to live practically within their incomes and to close the year 1917-18 with relatively small deficits. This, however, is an achievement which could hardly be duplicated after another year of the war.

RECENT PROGRESS.

Standardization.—The tendency in recent years to define sharply the different grades of education and to standardize institutions has been shared by the various church authorities. At the present time the three main branches of the Presbyterian Church, the two Methodist bodies, the United Brethren, and some of the smaller denominations have definite requirements for grading their schools. In particular, the Methodist Church, South, has greatly cleared the situation in its territory by sharply defining and classifying junior colleges. The Association of American Colleges has taken the lead in formulating the specifications of an efficient college and is now defining college efficiency on the financial side. The Religious Education Association, with the cooperation of the Council of Church Boards of Education, classified the Bible department in all of the higher institutions with a view to improving the standard, and the council has further promoted conferences for standardizing the Biblical instruction within those departments.

Financial campaigns.—It became evident some years ago that to realize the standards defined, larger endowments and incomes were indispensable. The past three years have therefore seen a remarkable group of campaigns among different denominations to promote their educational resources. The denominations of these boards affiliated with the council have been in the field for an aggregate of \$100,000,000. Of this amount the Disciples and Baptists, North, have now raised nineteen and a half million dollars. The most notable campaign has been handled by the Methodist Episcopal Church, completing on July 4, 1918, a jubilee fund of \$27,000,000.

Even greater efforts are now projected for the immediate future. The Southern Baptist denomination has blocked out a campaign for \$15,000,000 during the next five years; the Southern Methodist Church is committed to an educational campaign for \$13,000,000 for

colleges and \$10,000,000 additional for its two universities. The Presbyterian Church in the United States of America is projecting plans for campaigns totaling almost \$75,000,000, in which education will have a large share. A similar movement is under way in the Presbyterian Church in the United States (Southern). It is, therefore, evident that church standards of education, so far as they can be attained through financial strength, are in a fair way to be realized, and we are passing out of the period in which a denominational school because it is small is to be reproached with inadequate facilities for a well-rounded education.

War service.—During the past year the colleges with all they possessed were absolutely at the disposal of the Government. Students were encouraged and even urged to enlist. Some 45,000 college students left school almost immediately and more than 1,000 faculty men, including a score of college president, entered war service of some sort. College incomes were reduced more than \$2,000,000 through the loss in tuition and institutional costs increased an equal amount through rise in prices. In so far as they could secure military instructors, the Christian colleges introduced military training. The larger institutions were active in scientific research connected with the war, and all rendered valuable service in campaigns for the Red Cross, Young Men's Christian Association, liberty loans, recruiting, and to an even greater extent in interpreting the spiritual meaning of the struggle. On the other hand, all educational leaders recognized fully that the channels of trained leadership for the future should not be completely blocked and efforts were redoubled to maintain the essential lines of education.

Cooperation.—The most significant tendency of the year, greatly stimulated by the war, was the increasing cooperation of all the interests in the field of religious education. Within particular denominations there was a definite tightening of the bonds uniting educational institutions. During the year the Episcopal board strengthened its college department; the Presbyterian Church in the United States of America consolidated its various educational interests under a single board; the Methodist Church, South, expanded the work of its board of education and organized its colleges in an association; and the Reformed Church in America projected a survey of its educational interests.

The extent of interdenominational cooperation may be estimated from the activities in which the various churches have joined forces. At the present time colleges of most of the Protestant denominations, together with many Catholic schools, are combining much of their advertising under the leadership of the Council of Church Boards of Education, various State associations of colleges, and State Councils of Defense, and the National Council on Education,

which conducted an emergency campaign from Washington during the summer of 1918. The various church boards of education have combined their educational survey work and investigation in a single department. A new publication, the American College Bulletin, now serves as a medium of contact between interests in this field. A considerable venture in cooperative purchasing has also been developed by the Association of American Colleges. The same organization has secured scholarships for some 220 French girls distributed among American colleges. The American College Bureau, a co-operative agency for securing teachers, is in operation. In short, all the agencies of this field are working together in a way never before deemed possible.

These and other cooperative activities have been furthered by a number of important educational conferences during the year. The Council of Church Boards of Education, the Christian Associations, and the Church Workers in State Universities held a joint meeting at the beginning of the year to consider religious work in State institutions and united in the organization of a Nation-wide campaign to accomplish the Northfield program for Bible study. There have been special gatherings of those interested in college Bible departments, standards of Sunday school work, cooperative purchasing, preparation for the ministry, and the relation of the colleges to the war. Indeed, it is safe to say that there has been more impetus toward close educational cooperation among different religious bodies during the past two years than in the entire previous generation.

THE FUNCTION OF CHURCH EDUCATION.

The drawing together of the educational programs of religious bodies formerly independent naturally raises the question of the extent to which they hold a similar conception of their educational responsibilities. The educational activities of the churches seem to agree fundamentally on the following principles:

1. Religious instruction is necessary to a complete education. As such teaching is legally excluded from public schools, Christian institutions of learning and facilities for religious training at State institutions are necessary to supplement the public system.

2. The education necessary to the achievement of the Christian program must provide (*a*) trained church leaders; (*b*) denominational centers of influence; (*c*) educational facilities where the public schools do not reach; and (*d*) conservative influence on secular education.

It is not probable that any religious denomination would take exception to the general substance of these principles. Indeed, there is a very strong tendency on the part of the leaders in secular edu-

cation to indorse them without qualification. It is generally recognized that church schools have contributed to our total system of education a moral tone which would have been impossible under purely secular control. There is less disposition than ever before to bring about a mere duplication of educational facilities as between church and State and, on the other hand, a far stronger tendency to secure from each type its highest contribution to the Nation. Undoubtedly, means must be found by which greater continuity of religious and moral instruction from the lower to the higher stages of the educational system may be secured. However, the cordial relations among church bodies and between church and public education provide a much easier approach to that problem than has been possible for many years.

CHRISTIAN DAY SCHOOLS OF THE LUTHERAN CHURCH.

By W. C. KOHN,

President, Concordia Teachers College, River Forest, Ill.

The Christian day school constitutes the foundation of the Lutheran educational system in the United States. The basis of this system is the principle that religion is the most important object of human interest and concern. The children of today are the men of the church and the state in the future. The future of the church and of the state will depend upon the training and the education of the children in the present.

The Christian day school is a voluntary enterprise of a Lutheran congregation whose members, constrained by nothing but their own personal convictions based on scriptural truth, vote to establish and maintain a school in their parish. With the adoption of such resolution they mutually agree to send their children to that school. They select and call the teachers, build and equip the schoolhouses, and assess themselves for the support of the teachers and the maintenance of the schools.

The congregation is the owner of the schools, and has full control over them. This is a very important point. It asserts for the congregation the right of supervision. The pastor is the supervisor of the school, of both teacher and pupils. His supervision extends over religious instruction and over secular branches in so far as they are means of training. As branches of learning and knowledge, secular studies are under the supervision of the congregation, and this supervision is generally exercised by a school board.

In a few instances a so-called "school society" is organized by the members of the congregation, who alone contribute to the erection and maintenance of the school, leaving the institution, however, under full control of the congregation.

Since the Lutheran doctrine concerning the means of grace, that the Word of God is the incorruptible seed through which the soul is born again, and the firm conviction that education does not mean only the acquiring of knowledge of fundamental subjects, but is mainly the building up of an honest Christian character, which can not be done except under the continual influence of the scriptural Christ ideal, this makes it imperative for the members of the congregation to insist upon an early and thorough instruction of the young.

The parents are expected to send their children to the Christian day school in preference to any other, although such attendance is not made compulsory, moral and religious persuasion being the only methods employed in dealing with indifferent parents.

The basis on which the Christian day school is organized is the same as that of the public school in all its details, except that it devotes the first hour of each day to religious instruction and that all secular branches are taught in the spirit of the Holy Writ. The material used in the religious instruction is: Bible reading, Bible stories, Luther's small catechism with proof texts and explanations, Church prayers, and the most important Lutheran hymns. The textbooks on secular subjects are either those used by the public school or such as are published by the educators of the church, written in harmony with the doctrinal truths of the church. The medium of instruction is mostly English. The religious instruction is graded similar to that of secular topics. In the first three grades the children are taught simple Bible stories, the text of the chief parts of Luther's small catechism, and several morning and evening prayers. In the fourth and fifth grades an additional number of Bible stories with application to experiences in the child's life, a supplement of proof texts, and Lutheran hymns are taught. The sixth, seventh, and eighth grades comprise a thorough repetition of the entire catechism, Bible stories with a brief survey of the first three centuries of church history, and an intense study of the Reformation.

The greatest number of the Christian day schools in the larger cities are accredited by the educational authorities.

The spirit prevailing in the schools of the synodical conference is patriotic in the true sense of the word. The education of the teachers vouchsafes a spirit true to its government.

THE TEACHER OF THE CHRISTIAN DAY SCHOOL.

It has been customary in the synodical conference and other Lutheran bodies since the past 70 years to draw the teachers from their own rank and file. The teachers of the Christian day schools, as well as the pastor, who is ex-officio superintendent of the school in

his parish, are continually on the lookout for bright boys in their schools. Having found a strong, healthy, and studious lad they try to convince him and his parents of the necessity of good educators. On the decision of both the parents and the boy he is sent to one of the normal schools of the church. The synodical conference has three such schools, one at Seward, Nebr., for the West, another at River Forest, Ill., which is large, modern, and exceedingly well equipped, and the third at New Ulm, Minn. At these institutions tuition is entirely free; all expenses for salaries, equipment, and repairs are defrayed by the synod body. Ways and means are found to support even indigent students.

The institution at Seward has an enrollment of 135, and Concordia Teachers' College, at River Forest, 225 students; New Ulm has 98.

These colleges offer a high-school course of four years, and a normal divinity course of two years. Entrance requirements for the normal courses are 20 credits of high-school work. The courses are as follows: Isagogics, sacred history, church history, expositions in dogmatics, pedagogy, psychology, teacher's course in music, English, German, practical teaching in training school, mathematics, general science, general biology, nature study (including field work), chemistry, geography, physiography, physiology, and music (harmony, organ, and piano). The object of such education is not only to offer the student an opportunity to obtain a general education but also to train him in the practical, technical, and vocational work which the profession of a religious teacher requires. For the achievement of this aim a training school is connected with the colleges, where the members of the senior class are given ample opportunity to observe and to practice the art of teaching religion and the secular branches under the immediate supervision of two competent critic teachers. This training offers the students special advantages, because there they are confronted with actual school conditions, and are led and directed to meet these conditions according to the most approved methods, thus making a practical study of school conditions, school administration, school methods, and school children. At the same time they continue with their regular studies. This correlation between practice teaching and class-room study of great subjects strengthens and broadens each part of a professional course and helps the normal teacher to keep his classwork in close touch with the everyday work of the schools and adapt it more fully to the practical needs of the student.

Before the student enters the last year he is given an opportunity to serve as supply or substitute teacher in different schools. He is required to do consecutive work in some specific grade of a large school, or practice work in all grades in a country school. If his work as substitute is efficient he enters the class of candidates, and

if his work continues to be satisfactory he is recommended as a permanent teacher at the end of the school year.

The institution at River Forest, Ill., has a fine museum, with an abundance of museum material, located centrally in order to be in close connection with the classrooms. The material is not used for the sake of satisfying the visitors' curiosity, but for educative purposes.

In order to acquaint the students with the best talent in art, weekly lectures and recitals (song, organ, and piano) are given them by well-known artists. This tends to spur the students onward, and gives them a wider range and an idea of the achievements which can be reached.

For the teaching of science a complete chemical laboratory is equipped, ready for use at all times.

For the instruction in music and for practicing, 8 pipe organs and 20 pianos are at the disposal of the students at regular periods.

COURSES OF STUDY.

The college offers a high-school course of four years and a normal divinity course of two years. Entrance requirements for the normal course are 20 credits of high-school work.

In the high-school department the following courses are given:

	Units
English :	
General literature.....	1
American literature.....	1
English literature.....	1
Composition and rhetoric.....	1
German :	
3: Modern prose and poetry. Elementary composition and grammar.....	1
4: Advanced prose and poetry. Advanced grammar.....	1
5: Study of German classics. Essay course.....	1
6: Outline of German literature, from earliest times to Heine, Theory of composition	1
7: Study of Schiller, Goethe, Herder, Lessing, etc., The modern essay.....	1
Mathematics :	
Advanced arithmetic	1
Algebra (to quadratics).....	1
Algebra (through quadratics).....	1
Plane geometry.....	1
History :	
Ancient.....	1
Medieval and modern.....	1
United States (advanced course).....	1
Biblical.....	1
General science.....	1
General biology.....	1

	Units.
Nature study	1
Chemistry	$\frac{1}{2}$
Geography	1
Physiography	1
Elementary dogmatics	1
Music (harmony, organ, and piano)	$1\frac{1}{2}$

One unit credit is the equivalent of 150 class periods of 60 minutes.
The Normal Divinity Department offers the following courses:

Pedagogy :	Courses in literature and rhetoric:
History of education.	American.
Principles of education.	English.
Psychology.	German.
Methods.	Isagogics.
Teachers' courses:	Sacred history.
Reading.	Church history.
Grammar.	Expositions in dogmatics.
German.	Teachers' course in music.
Arithmetic.	Practice teaching in the training school.
History.	
Penmanship.	
Drawing.	
Catechetics.	

IMPROVEMENT OF TEACHERS.

Since the last four years agencies for the improvement of teachers both during the period of preparation and while in office have been increasing in efficiency and in number. One of the most potent is the "Teachers Conference." The synods have divided their territories into districts, and the teachers within each district form a conference, the attendance of this conference being obligatory. These conferences convene from two to four times annually. In their meetings they follow the plan of intensely discussing one or two topics, assigning one speaker to present an outline of the problem or topic. When this paper has been read, the discussion is opened to those voicing different opinions. It is evident that this will concentrate the attention of all to the topic under discussion and enable every one to render an intelligent decision when at the close of the discussion the proposal for adoption or rejection of the essayist's views is passed upon by vote. Each year these district conferences send one or more representatives to a general conference which convenes annually in one of the larger cities, and in which topics concerning the national welfare of the Christian day schools are ventilated. The Missouri Synod has appointed a committee or an editorial staff which publishes a pedagogical magazine, "Schulblatt," monthly in the interest of the school and the teacher.

Lutheran normal colleges reported at the beginning of the year 1918 are as follows:

Wartburg Teachers' Seminary, Waverly, Iowa (Iowa Synod), 11 teachers, 158 students.

Lutheran Normal School, Madison, Minn. (United Norwegian Church), 9 teachers, 157 students.

Lutheran Normal School, Sioux Falls, S. Dak. (Norwegian Synod), 11 teachers, 210 students.

Immanuel Lutheran Normal, Greensboro, N. C. (colored; Synod Conf.), 4 teachers, 56 students.

Concordia Teachers' College, River Forest, Ill. (Missouri Synod), 13 teachers, 231 students.

Lutheran Teachers' Seminary, Seward, Nebr. (Missouri Synod), 9 teachers, 152 students.

Evangelical Lutheran Normal School, Woodville, Ohio (Ohio Synod), 5 teachers, 62 students.

At various other colleges, seminaries, and academies of the Lutheran Church bodies normal courses are given for the preparation of teachers for the Christian day schools.

THE OFFICE OF THE CHRISTIAN DAY SCHOOL-TEACHER.

The teacher of the Lutheran day school is called as an assistant to the pastor, and before he enters upon his duties he is installed in the capacity of a "regular" minister of religion, whereupon he takes the oath of office that he will well and truly conform to the principles of religion as quoted in the official Hand Book, Confessions, and Holy Writ as taught by said synod. And as such it is his regular and customary vocation to teach the principles of religion to the children of the congregation which called him. His duties further consist in teaching and preaching in regular catechetical and Sunday services and in conducting the reading service in the absence of the duly ordained pastor. Thus the teacher not only makes the teaching of the principles of religion his life vocation, but he is primarily engaged in teaching such principles to the children of the congregation. Where the congregation is too small to engage an assistant pastor to look after the spiritual welfare of the children and young people this duty devolves upon the duly ordained minister. For this reason—that he is principally engaged in religious work assisting the pastor in taking care of the spiritual welfare of the children—he is looked upon by the synod, as well as by the individual congregation, as a regular minister of religion.

SCHOOL BUILDINGS.

Within the past 15 years the Lutheran Church bodies have made remarkable improvements in school buildings of cities and large

towns, as well as in buildings for country schools. Many of them are approaching the ideal schoolhouse. Every site selected must be a location comparatively level and situated so that it can be kept dry, with enough space for a good playground.

SUPERVISION.

Besides the supervision exercised by the congregation and its pastor, the Lutheran Church has elected a general board to improve upon its entire school system, and each district has elected a supervisory board for the supervision of the schools in its territory. The district board is in close connection with the general board, and must make semiannual reports. In some localities the following system prevails: Each synodical district, comprising one or two States, has elected boards whose duties are to inspect schools, to hear appeals concerning school matters, to see that the curriculum and the lesson schedule adopted by the church are carried out so that the aim set for the school is achieved, to make a summary of the statistics, to oversee the educational work in their locality, involving about 15 schools, and to make the necessary reports to the district boards.

The second administrative unit is the district board. This board receives the reports of the local boards, and improves upon a uniform curriculum and schedule by comparing the reports from the various localities. In some instances, such as in the northern Illinois district of the Missouri Synod, a superintendent of schools is elected, who is chosen by popular vote at the district convention. It is his duty to visit the schools, examine the teachers, call institutes, hear appeals in school matters, and superintend the educational interests of the districts. In all districts there is a board which cooperates with the superintendent.

STATISTICS.

According to the reports offered by the representatives of the different synods of the Lutheran Church the status of the Lutheran parochial school is as follows:

The German Iowa Synod reports 416 schools, 52 teachers, 400 pastors teaching in school, 14,190 pupils, 38,847 members, and 128,219 communicant members.

The Lutheran Free Church reports 210 schools, 255 teachers, and 6,500 pupils.

The Joint Synod of Ohio and other States reports 281 schools, 109 teachers, 9,391 pupils, 200 pastors teaching in school, 206,198 members, and 139,015 communicant members.

The United Synod in the South has no Christian day school. It has a membership of 73,510 and a communicant membership of 53,226.

From the General Synod no Christian day school has been reported. Its baptized membership is 474,740, and its communicant membership is 364,072.

The General Council is composed of 13 synods, with 610 schools, 747 teachers, and 24,605 pupils. Its baptized membership is 760,441, and its communicant membership 531,978.

The Elson's Synod reports 6 Christian day schools, 6 pastors teaching in school, 300 pupils, baptized membership 1,567, communicant membership 1,232.

The Danish Lutheran Church reports 84 schools, 84 teachers, 2,230 pupils, 21,491 baptized members, and 14,463 communicant members.

The German Immanuel Synod has reported no change from the last issue, in which she stands with 15 schools, 15 teachers, and 323 pupils.

From the Icelandic Synod and the United Danish Lutheran Church no parochial school work has been reported.

The Finnish Suomi Synod reports 61 schools, 65 teachers, 3,998 pupils, 32,541 baptized members, and 16,511 communicant members.

The Norwegian Lutheran Church of America reports 853 schools, 1,283 teachers, 50,371 pupils, 485,000 baptized members, and 300,000 communicant members.

The Synod of Missouri, Ohio, and other States reports 2,213 schools, 1,173 pastors teaching in school, 1,450 teachers, 96,737 pupils, 1,000,914 baptized members, and 613,798 communicant members.

The Wisconsin Synod reports 250 schools, 173 teachers, 16,412 pupils, baptized membership 190,946, communicant membership 155,261.

The Minnesota Synod has 120 schools, 41 teachers, 11,593 pupils, 37,537 baptized members, 26,319 communicant members.

The Michigan Synod has 76 schools, 27 teachers, 6,837 pupils, 23,124 baptized members, and 12,121 communicant members.

The District of Nebraska has 25 schools, 11 teachers, 1,210 pupils, 7,815 baptized members, and 5,969 communicant members.

The Slovak Synod reports 80 schools, 6 teachers, 1,614 pupils, 12,970 baptized members, 8,570 communicant members.

EDUCATION IN THE METHODIST EPISCOPAL CHURCH.

By HENRY H. MEYER,

Editor of Sunday School Publications.

The Methodist Episcopal Church emphasizes the importance of educational work. It holds that the individual to be a useful member of society must have high ideals of life and conduct and must possess the ability to act in accordance with those ideals both for the sustenance of his own life and for the service of mankind.

PARISH INSTRUCTION.

At the foundation of the whole plan is the educational work in the local parish. The general conference of the church has made provision for the maintenance of a board of Sunday schools whose duties are "to found Sunday schools in needy neighborhoods; to contribute to the support of Sunday schools requiring assistance; to educate the church in all phases of Sunday-school work, constantly endeavoring to raise ideals and improve methods; to determine the Sunday-school curriculum, including the courses for teacher training and, in general, to give impulse and direction to the study of the

Bible in the church." For the year 1917 the board reported 36,302 Sunday schools with a staff of officers and teachers of 414,480 and a total enrollment of 4,679,943. In each case the figures were the highest in the history of the church.

The textbooks and periodicals furnished by the Methodist Book Concern show improvement both in variety and quality. A complete carefully graded course of study is now provided for pupils of all ages, a three-year course of training for prospective teachers and officers is available, and there is an increased supply of literature dealing with special aspects of religious education. These publications have a circulation of 5,000,000, of which 343,000 are for teachers. Special attention has been given to the interpretation to the pupils of present world conditions. Twelve lesson courses of study have been prepared and widely distributed on the topics of "World Democracy" and "Marshaling the Forces of Patriotism."

An important educational work is carried on by the Epworth League through its study classes and institutes and especially by means of its plan whereby every league member is assigned to some definite task in the service of the church and the community.

SCHOOLS AND COLLEGES.

The Board of Education of the Methodist Episcopal Church holds an advisory relation to all the Methodist Episcopal schools and colleges, which are, as far as possible, independent and self-supporting.

Institutions.	Num-ber.	Grounds, buildings, and equipment.	Endowment.	Annual income.	Debt.	Faculty.	Students.
Colleges, universities, theological seminaries, etc.....	49	\$27,968,503	\$29,203,490	\$4,893,997	\$1,521,262	2,506	38,661
Secondary schools.....	39	4,268,311	1,759,238	641,803	372,001	431	7,343
Negro institutions.....	20	2,075,450	748,442	404,906	15,000	333	6,006
Total.....	108	34,312,264	31,709,170	5,940,586	1,898,263	3,270	52,010

Much of the endowment of the schools and colleges is secured through the cooperation of the board of education. In some cases direct gifts of money are contributed to the annual income, out of a fund which the board maintains for that purpose. During the year 1917 a total of \$43,030.43 was granted to schools.

Through the university senate the church exercises its power to maintain standards of endowment, equipment, and scholastic work in the colleges and schools. The senate consists of 16 college presidents. Created in 1888, it is believed to be the first organization for standardizing colleges in America.

In order that a Methodist Episcopal institution may be listed as a college it must satisfy five principal requirements:

1. A four-year preparatory course for entrance to the freshman class.
2. Four years of college work leading to the bachelor's degree.
3. A faculty of not less than six teachers giving time exclusively to college, as distinguished from preparatory or professional school work.
4. Not less than 50 students regularly enrolled in the four college classes.
5. A minimum of \$200,000 of productive endowment over and above annuities and debts.

SECONDARY SCHOOLS.

During the biennium 1915-1917, 39 secondary schools were affiliated with the board. Institutions of this class do not progress rapidly, since the advance and expansion of public high schools supplies so well the increasing demand for secondary education. There is nevertheless a constant need which the public high school can not fill. Children whose parents are dead, or divorced, or constantly traveling, or who are made sensitive by slight mental and physical defects must receive personal care in their education. Therefore the board includes in its responsibilities the support and encouragement of secondary schools.

The total faculties include 431 members. Total attendance for the school year ending in June, 1917, was 7,343.

Fifteen schools at widely separated points in the southern mountains are a direct charge and not merely under the board's supervision. Extension of education among the highlanders of the South is a field of activity assigned by the general conference of 1908. These southerners were never slaveholders. Turning to the mountains from a love of hunting and adventure, or driven there to avoid the fate of the poor whites, they fell into poverty and isolation, from which but few have ever emerged.

The board of education furnishes in this section both institutions and the means of attending them.

Funds for the support of schools are taken from the public educational collection, of which one-fifth is paid to the board, while the remainder goes directly to the local Methodist institution.

PROGRESS IN TWO YEARS.

Comparing the same 49 colleges, universities, and professional schools, in the reports for June, 1915, and June, 1917, they progressed in every direction:

	Grounds, buildings, and equipment.	Endowment.	Income.	Debt.	Faculty.	Students.
June, 1915.....	\$25,563,330	\$28,075,350	\$4,290,632	\$2,837,356	2,411	33,528
June, 1917.....	27,988,508	29,203,490	4,893,997	1,521,262	2,536	33,661
Difference.....	2,405,178	1,128,131	613,365	1,316,094	95	5,138

In two years the equipment, buildings, and grounds have advanced nearly two millions and a half, the paid-in endowment more than a million, and the annual income more than half a million, while the indebtedness is reduced a million and a quarter. The combined faculties have gained 95 members, and the student enrollment shows an increase of over 5,000.

The increase in endowment during this period can not be judged merely from the above tables, which represent actual sums paid in. In addition the educational jubilee, under leadership of this board, had subscribed up to June, 1917, something over nineteen millions, though exact figures are not available until the close of the campaign in 1918.

THE STUDENT LOAN FUND.

An important function of the board is the administration of the student loan fund, by which 2,062 students received financial aid in 1917. With a few exceptions, only persons studying in schools or colleges of the church may receive loans. The fund is derived from the annual Children's Day collection in the churches, which in 1917 totaled \$99,000. The church, therefore, contributes nearly \$100,000 each year to the cause of education in addition to the public educational collection.

The loan fund began operation in 1873; since then in all 24,985 students have received loans.

Of the 2,062 aided last year, the intended callings are:

Ministry	828
Missionary	133
Ministry and missionary.....	28
Teaching	536
Other callings.....	537
Total	2,062

The loans bear no interest if paid within five years after graduation. As soon as money is returned it goes into the available fund and is loaned out again.

NEGRO EDUCATION.

Special work for colored people in the Southern States is under the care of the Freedmen's Aid Society of the Methodist Episcopal Church. For this purpose the following institutions have been

established: Gammon Theological Seminary, Atlanta, Ga.; Meharry Medical College, Nashville, Tenn.; Flint-Goodridge Hospital and Nurse Training School, New Orleans, La.; Bennett College, Greensboro, N. C.; Claflin College, Orangeburg, S. C.; Clark University, Atlanta, Ga.; Samuel Huston College, Austin, Tex.; New Orleans College, New Orleans, La.; Rust College, Holly Springs, Miss.; George R. Smith College, Sedalia, Mo.; Philander Smith College, Little Rock, Ark.; Walden College, Nashville, Tenn.; Wiley College, Marshall, Tex.; Central Alabama Institute, Birmingham, Ala.; Cookman Institute, Jacksonville, Fla.; Gilbert Industrial Institute, Baldwin, La.; Haven Institute, Meridian, Miss.; La Grange Academy, La Grange, Ga.;¹ Morristown Normal and Industrial College, Morristown, Tenn.; and Morgan College, Baltimore, Md. Princess Ann Academy and Virginia Collegiate and Industrial Institute, Baltimore, Md., are two schools affiliated with the last-named institution.

At Bennett College, Claflin College, Clark University, Samuel Huston College, New Orleans College, Rust College, Philander Smith College, Walden College, Wiley College, and Morgan College, college preparatory, high school, academic, and normal training are carried on extensively, with a small college course for a few of the students who feel that they need the larger preparation either for entrance into professional schools or for the higher grades of teaching.

At Central Alabama Institute, Cookman Institute, Gilbert Industrial Institute, Haven Institute, Morristown Normal and Industrial College, George R. Smith College, Princess Anne Academy and Virginia Collegiate and Industrial Institute until recently at Lynchburg, Va., now at Baltimore, Md., primary and grade work, with high school, academic, college preparatory, and normal training are carried on. At many of the schools primary and grammar classes are kept up, partly for teacher-training purposes and partly to supplement the insufficient facilities for colored children provided in the public schools.

Industrial departments are maintained at Claflin College, Samuel Huston College, Gilbert Industrial Institute, and Morristown Normal and Industrial College. Agriculture including gardening is taught at Bennett, Claflin, Samuel Huston, George R. Smith, Wiley, Central Alabama, Gilbert, and Morristown.

The curriculum for all of these schools is prepared by the Freedmen's Aid Society and approximates the requirements for similar grades in schools generally throughout the country. Of necessity the same standards can not be maintained as in those sections of the country where teachers have been trained for generations, and the

¹The property is used by the public school.

school systems have the advantages of modern libraries. Nevertheless, everywhere there is the purpose to advance the standards of promotion and graduation up to the highest requirements of the best schools anywhere throughout the country. Grade records are kept in all the schools and promotion is entirely on the basis of the work accomplished.

The entire attendance at all of these schools last year was 5,864. The cost of maintenance for the year 1916-17 was \$436,034.30, of which the Freedmen's Aid Society contributed \$130,360.03. The balance was in student fees, board bills, and the contributions of the colored conferences in which the institutions are located.

DEACONESS SCHOOLS.

The general deaconess board of the Methodist Episcopal Church, in addition to supervising the deaconess work throughout the church, carries on important educational work. There are now in successful operation 56 deaconess homes, 25 hospitals, 23 mission and settlement houses, 11 training schools, 23 rest and summer homes, 6 homes for the aged, 8 children's homes, 11 girls' homes, 1 boys' school, 2 girls' schools, and 1 boys' and girls' school. These institutions are located in 89 different cities and towns of the United States and represent property and endowment of \$8,270,143.

EDUCATIONAL WORK OF THE METHODIST EPISCOPAL CHURCH, SOUTH.

By W. E. HOGAN,
Assistant Secretary, Board of Education.

Exclusive of a score or more schools which the Home Department of the Board of Missions maintains for dependent and delinquent girls, and for children of foreign-speaking people, the educational institutions of this church, within the United States, are as follows: Universities, 2; colleges of liberal arts, 29; junior colleges, 24; academies, or secondary schools, 26; mission and missionary training schools 4; total, 85. The value of the grounds, buildings, and equipment of these 85 institutions is \$15,641,244. The amount of their combined endowment is \$8,985,874. Their gross assets are therefore \$24,627,118. The annual income of these institutions was last year \$2,140,714. The total enrollment was 19,736.

CLASSIFICATION AND STANDARDIZATION.

Although the Methodist Episcopal Church, South, has been one of the pioneers among the denominations in providing the necessary

boards and commissions for standardizing and classifying its educational institutions, it was not until within the last two years that this work has been done with anything like completeness or satisfaction. As early as 1898 the church, through its General Conference, created what is known as the commission on education. This commission is composed of 10 practical educators appointed quadrennially, whose duty it is "to protect the educational standards of the church." At least once in four years this commission meets and issues a carefully prepared report in which it prescribes the minimum requirements as to admission and graduation standards, teaching force, income, and endowment to be demanded of the several classes of institutions. To the board of education of the church is then committed the task of ascertaining the financial condition and the equipment, as well as the amount and quality of the work done in all the educational institutions, and to classify each according to the relation of its equipment and the quality of its work to the standard established by the commission. Like all other agencies which have undertaken the work of classifying a number of colleges differing so widely in material equipment and academic standards, the board has found this to be a very difficult task. The commission would fix quadrennially definite and specific requirements to be demanded of the different classes of institutions of the church, but because of the large number of institutions organized as four-year colleges but unable to meet the college standards, provision was made for carrying temporarily a list of "unclassified institutions." Although this work of correlating and organizing its schools into one harmonious system was carried on by the church through its board of education and its commission on education with more or less success for a number of years, and this list of "unclassified institutions" gradually grew smaller, it was not until the General Conference of 1914 that legislation was enacted which made possible the classification of all the schools of the church.

It is interesting to note that the junior college movement assisted materially in making possible the complete elimination of the list of "unclassified institutions." Although the commission had made no provision for the junior colleges up to 1914, a dozen or more of the colleges of the church were attempting only two years of college work, the freshman and the sophomore, and were calling themselves junior colleges. The sixth report of the commission, issued in August, 1914, prescribed definite standards for academies, junior colleges, colleges, theological seminaries, and universities, and gave explicit directions that every institution of the church should be placed in one of the classes and that this classification, based on the new requirements and standards, should be made not later than the sum-

mer of 1916. Accordingly in September, 1916, the board of education, with great care, made a thorough classification of all the institutions of the church. The elimination of the list of meaningless "unclassified institutions" has been therefore one of the important educational achievements of this church during the last two years.

THE CORRESPONDENCE SCHOOL.

A unique feature of the educational work of the Methodist Episcopal Church, South, is the correspondence school which the board of education has maintained for 16 years. The purpose of this school is to give instruction through correspondence to the young preachers pursuing the four-year courses of study required of them for admission into annual conferences. During the 16 years of its operation this correspondence school has proven to be a most valuable agency for the training of preachers. It gives instruction annually to about 1,000 young preachers. Heretofore these men have not been required to take their conference courses of study through the correspondence school, although they were strongly urged to do so. But, beginning with the conference year 1918-19 all of the young preachers must take their annual conference courses of study through this school. This will increase the enrollment about 50 per cent. At present (July, 1916) the instruction is given by the members of the faculty of the Candler School of Theology of Emory University. But the General Conference this year authorized the board of education to divide the work of the school between the two universities of the church, so that the territory east of the Mississippi River will be served by the Candler School of Theology at Atlanta, Ga., and that west of the Mississippi by the School of Theology of Southern Methodist University at Dallas, Tex. The work will continue to be done under the general supervision of the board of education, but instruction is to be done by members of the faculty of the two schools of theology.

RELIGIOUS EDUCATION.

Along with other denominations, this church recognizes the increasing importance of distinctively religious education. During the last two years the board of education has made surveys of the religious instruction provided in the institution of the church and the need for religious education of students in State institutions. As never before, the church's obligation to provide for the religious education of all its children and youth is being recognized by both educators and churchmen. The increased emphasis which is being placed upon this important work by the Methodist Episcopal Church, South, is

shown by the recent establishment of the following new agencies for promoting religious education as distinct from secular education:

1. *A joint committee on religious education.*—This committee consists of 10 members, 5 appointed from the Sunday school board and 5 from the board of education, and to it has been committed the duty of promoting specific religious instruction in the educational institutions of the church.

2. *Annual conference commission on religious education in State institutions.*—Provision has this year been made for the creation in each of the 40 annual conferences of a commission for the purpose of providing for the religious education of students in State institutions. Upon the approval of the annual conference, this commission is empowered to employ a director of religious education at those charges in which are located State institutions. The five annual conferences in Texas and the three in Missouri had already begun this work at the seats of the universities of these States even before this commission was provided for, and the authorities of the church and of the universities have been working in perfect harmony and genuine cooperation.

3. *Secretary of department of ministerial supply and training and of religious education.*—For some years the board of education has maintained a department of ministerial supply and training to which a secretary has given all his time. But the proposed division of the work of the correspondence school and the election of a director at each of the two schools of theology will relieve this secretary of much of his work, so far as it relates to ministerial training. The board has, therefore, elected him to the office of "secretary of ministerial supply and training and of religious education," with the understanding that he is to give practically all of his time to questions pertaining to ministerial supply and religious education. Beginning with the college year 1918-19, therefore, the board is to have a secretary to whom is committed the specific task of promoting distinctive religious education in colleges of the church, in State institutions, and wherever else he deems it practicable.

AID TO NEGRO EDUCATION.

This church does not own and control outright any Negro school, but jointly with the Colored Methodist Episcopal Church it owns Paine College, Augusta, Ga. In addition to its contributions to this school the church has also been making small annual donations to five or six of the schools belonging entirely to the Colored Methodist Episcopal Church. In recent years approximately \$20,000 have been given annually through the board of education and the home department of the board of missions to Negro schools. Much more

than this amount was given in response to appeals at annual conferences and elsewhere, but that has been the amount officially and definitely set aside for certain specific work in Negro schools.

But the General Conference of 1918 was much more responsive to the educational needs of the Negro than any previous General Conference has been. The program which the General Conference of this year has laid out includes: (1) An annual assessment upon the entire church of \$55,250 for colored work, one half of which is to be administered by the board of education and the other half by the board of missions. (2) The missionary centenary movement, which proposes to raise \$35,000,000 in the church within the next five years, carries with it a program of about \$1,000,000 for the religious welfare of the Negro, about \$400,000 of which is to go to Paine College and \$250,000 is to be distributed equally among five other educational institutions of the Colored Methodist Episcopal Church.

CAMPAIGN FOR ENDOWMENTS AND PLANT IMPROVEMENTS.

In his annual report to the Board of Education in 1917 the corresponding secretary called attention to the financial needs of the whole educational field of the church and made certain specific recommendations for meeting these needs. After making a detailed analysis of the present educational situation, he declared it to be "of the greatest importance that the debts of our schools be paid; that endowment sufficient to insure to them at least a moderate annual income be secured, and that their buildings be made reasonably adequate." He recommended that the board endeavor to secure from the General Conference of 1918 the following action: (1) Fix a definite minimum sum as required to meet the educational needs for the next four years, request the church to contribute said sum, and authorize the educational forces to collect it. (2) Provide for an agency to apportion to each institution the amount which it should receive. (3) Provide for an agency whose duty it shall be to eliminate or combine superfluous schools in case it appears that such action is necessary. (4) Provide for an organization under whose general superintendency an educational forward movement shall be conducted.

The board thereupon directed that its corresponding secretary obtain detailed information from the institutions themselves as to the amounts necessary for them to secure "to enable them to carry on their work successfully." This direction was carried out with much care, and the secretary's quadriennial report to the General Conference in May, 1918, gave an itemized statement of the need of the several institutions. Not including the two universities the aggregate amount which the institutions need, according to their reports to the board of education, is \$13,208,655. The two uni-

versities reported that they should have within the next four years additional resources amounting to \$5,000,000 each. Recognizing the fact that to carry out successfully any movement to secure the \$23,000,000 needed to strengthen the institutions of the church would require the cooperative effort of all available agencies and that such cooperation would be impossible without the proper organization, the General Conference of 1918 enacted the following legislation looking to a great educational forward movement.

1. A church-wide campaign to raise \$13,000,000 for the schools and colleges of the church was approved and ordered. This campaign is to be "conducted under the general supervision of the General Conference board of education in cooperation with annual conference boards of education and college trustees."

2. A campaign for \$10,000,000 for the church's two universities—\$5,000,000 for Emory University, at Atlanta, Ga., and \$5,000,000 for Southern Methodist University, at Dallas, Tex.—was indorsed and ordered. The immediate conduct of this campaign was lodged in the boards of trustees of the two universities.

3. The organization of an educational association among the schools, colleges, and universities of the church. This association has already been organized. Its purpose is to foster the cause of Christian education, and it is expected that it will render invaluable aid in the conduct of the financial campaigns which have been ordered.

4. The board of education was authorized, if it deems wise, to make provision for a commission on consolidation to which shall be given "authority to investigate and advise with reference to the correlation, elimination, or consolidation of any educational institution or institutions of our church wherever one or more annual conferences request the board of education for such assistance."

There has been no more important achievement in the educational history of the last two years of this church than the securing of this legislation which makes possible the necessary organization and machinery for a unified, cooperative church-wide financial campaign for the endowment and plant improvement of all those institutions of learning which the best educational thought of the church believes should be maintained and strengthened.

EDUCATIONAL WORK OF THE BAPTIST CHURCH, NORTH.

By FRANK W. PADELFORD,
Executive Secretary Board of Education.

The educational interests of the Northern Baptists are fostered by two denominational agencies, the board of education and the American Baptist Home Mission Society. The latter owns and directs

the schools for Negroes and Indians. All other educational interests are directed by the board of education. The denomination, as such, however, does not own or control its schools for the American whites. They are all under the direction of boards of trustees, most of which are self-perpetuating. While the denomination supports and fosters many schools, it wishes them to be free from denominational control.

The Baptists of the North have 8 theological seminaries, 9 training schools mostly for preparing ministers for non-English-speaking churches, 22 colleges, 10 junior colleges, and 20 academies. These institutions enroll 28,286 students, have property worth \$31,525,203 and endowments of \$49,084,299.

The Baptist Church, North, owns and controls through its Home Mission Society 23 schools for the Negroes of the South, 13 being of college grade and 10 of secondary grade. It owns one school for the higher education of the Indians and several for elementary education. It also conducts one school in Cuba and one in Porto Rico. The total attendance at the missionary schools is 8,073, of whom 2,396 are receiving some form of industrial training and 444 are preparing for the ministry. These school properties are valued at \$1,454,000.

In 1915 the denomination adopted a program of advance for a five-year period. The educational items in that program are as follows: "Student pastors in 25 universities, 15,000 Baptist students in colleges and universities, 1,000 Baptists students in theological seminaries, and \$6,000,000 additional equipment and endowment for our schools at home and abroad." Until our entrance into the war the church was making rapid progress in the attainment of each of these goals, but the war has caused a serious setback. We had student pastors or assistants in 19 universities. The exact number of Baptist students in colleges was unknown, but we had 17,841 students in our Baptist colleges. The number of students in our theological institutions was 997. There has been a serious decrease in all these directions as a result of the war.

The financial program of the Church for its schools has not been seriously affected as yet. During the three years 1915-1918 there have been added to the funds of our institutions \$10,568,094. Thus in three years we have surpassed the goal set for five years. During the year 1917-18 the additions have amounted to more than \$3,500,000.

The most important development of the last two years has been the decision of the board of trustees of the University of Chicago to found a graduate medical school of the highest grade. The original foundation for this school will be \$15,000,000, a half of which had been subscribed when war was declared. The project is only temporarily delayed by the war. It is the intention of the trustees to found the school at the earliest possible moment. The Middle

States will then have a graduate medical school of the grade of Johns Hopkins.

During the past year another consolidation has taken place in Iowa. Union College, located at Des Moines, which is a result of the consolidation two years ago of Central University and Des Moines College, has now absorbed Highland Park College and purchased its property in Des Moines. This has assured one strong institution in the place of three weaker ones.

The board of education has just embarked upon a project to raise a large fund, the interest of which shall be devoted for a period of five years following the close of the war, or so long as may be necessary, to assisting Baptist boys who have been in the Army and Navy in completing their education. Large numbers of boys left for the war with their education only partially completed. Many of them will wish to return and the church intends to assist them in finishing their education.

The Baptist Church, North, has maintained an increasingly extensive work among the Negroes of the South since the days of their liberation. The most important of its institutions are Spelman Seminary for girls at Atlanta, Ga., with an enrollment of 780; Benedict College at Columbia, S. C., with an enrollment of 694; Shaw University, Raleigh, N. C., an institution with full collegiate department and several graduate schools, with an enrollment of 402. The one school for the higher education of the Indians is Bacone College at Bacone, Okla., with an enrollment of 266.

The church maintains schools for training ministers for the new populations in America among the Danes, Hungarians, Norwegians, Russians, Slovaks, Swedes, and Germans.

SOUTHERN BAPTISTS AND EDUCATION.

By J. W. CAMMACK,

Secretary, Education Commission of the Southern Baptist Convention.

In the 17 States which cover the territory of the Southern Baptist Convention are more than two and three quarter million white Baptists who are enrolled in the churches. A number of their colleges were founded around the year 1825. In their organized educational work Southern Baptists were preceded by the Northern Baptists, who founded Brown University in 1764 and who gave to Harvard University its first president. For many years Southern Baptists shared the poverty which was general in the South. Many of their members are in the rural districts and very much of whatever progress has been made in rural free schools in the South has been due to the initiative of Baptist country pastors and to the voluntary gifts, in addition to the school levy, from Baptist men and women.

THEOLOGICAL SCHOOLS.

For the training of ministers and mission workers Southern Baptists have the Southern Theological Seminary at Louisville, Ky., the Southwestern Theological Seminary at Fort Worth, Tex.; and the Baptist Bible Institute at New Orleans, La. The first of these has more male students than any other theological seminary in this country, the number, in 1917, being 322. The institute at New Orleans opened its first session in September, 1918. In the other two institutions, in 1917, were 474 men and 217 women; the latter were taking training for mission and social settlement work. Their property was valued at \$1,100,000 and the endowment amounted to \$1,645,000.

COLLEGES AND UNIVERSITIES.

Southern Baptists have 38 schools of college and university grade. Not all of these have reached the standard college grade, according to the Southern Association of Schools and Colleges, but are giving four years of college work beyond the standard high school. In these, in 1917, were 399 male and 376 female teachers, and 5,433 male and 6,851 female students. The property was valued at \$8,563,493 and the productive endowment at \$5,370,000. Their income amounted to \$1,420,289.

JUNIOR COLLEGES.

A system of junior colleges, giving two years of standard college work, in addition to high-school courses, is being developed by Southern Baptists. There are 15 of these, and in 1917 there were in them 671 young men and 2,272 young women. Their property is valued at \$2,000,000. Most of these schools are unendowed. Several of them are supported in part by annual gifts from the churches.

ACADEMIES.

Of the high-school grade, Southern Baptists have 77 institutions. These give from 14 to 17 units credit for work done, and prepare students for universities and colleges. In them, in 1917, were 5,851 boys and 5,029 girls. Their property is valued at \$2,335,250.

ORPHANAGES.

School work is done in 13 orphanages which are under control of Southern Baptists. In some of these the work is carried on up to the eighth grade, and some give four years of high-school work. In the schools of these institutions in 1917 were 877 boys and 965 girls. Their property is valued at \$2,000,000. Thus the total number of

schools fostered and controlled by white Southern Baptists is 145. The total number of students is 28,640. The property value is \$15,-998,000, and the endowment amounts to \$7,343,000.

PRESENT PROGRAM.

At the last meeting of the Southern Baptist Convention, in May, 1918, a program was unanimously adopted which definitely calls for the securing of \$15,000,000 for new equipment and endowment for denominational schools within five years, and an enrollment in the schools of 35,000 students. A part of this program is to bring 25 of these schools up to the requirements of standard colleges according to the standards of the Southern Association of Schools and Colleges.

EDUCATIONAL WORK OF THE PRESBYTERIAN CHURCH IN THE UNITED STATES OF AMERICA.

By M. C. ALTABEN,

Superintendent of Schools, Woman's Board of Home Missions.

The educational activities of the Presbyterian Church in the United States of America are for the most part covered by the reports of (a) the Woman's Board of Home Missions, (b) the Board of Missions for Freedmen, and (c) the College Board. The church is making contributions to the cause of education throughout the United States as well as in Alaska and Cuba and Porto Rico. Mention should be made of the fact that one boarding school, namely, the Polytechnic Institute of Porto Rico, is under the Board of Home Missions of the Presbyterian Church in the United States of America.

The task of the Woman's Board of Home Missions is primarily to establish and maintain grammar and secondary schools at strategic points throughout the United States, among communities deprived by location, race prejudice, environment, or for some other reason of the advantages of public-school education or Christian influence and training. Through the mission schools established in such centers appeal is made to the moral and spiritual sides of life, and the resulting tendency is almost invariably a general mental awakening and improved standard of living. The course of study followed in the mission schools is similar to that of the State public schools, with particular stress on industrial training, so that when boys and girls leave these schools they may be well equipped for the successful undertaking of life in a rural environment, both as useful citizens and as home makers.

There are also Presbyterian schools in immigrant communities. These are controlled on a different basis from the others, the work

being administered locally, although the funds pass through the hands of the board.

The officers of the Woman's Board and the College Board are located at 156 Fifth Avenue, New York City; the headquarters of the Board of Missions for Freedmen are 513 Bessemer Building, Sixth Street, Pittsburgh, Pa.

The following is a résumé of statistics of boarding and day schools of the Woman's Board of Home Missions: Boarding schools—commissioned workers, 185; enrollment, 2,159; average attendance, 1,663; Sunday-school scholars, 1,636; young people's society members, 866; number united with church, 159; schools, 21. Day schools—commissioned workers, 33; enrollment, 1,145; average attendance, 748; Sunday-school scholars, 508; young people's society members, 146; number united with church, 7; schools, 17. The figures for enrollment and average attendance are obtained from the annual reports covering the school year 1916-17. All other statistics are for the calendar year 1917.

The Board of Missions for Freedmen has for its task the greatest possible contributions toward the educational development of the Negro race in the South. This is a problem which has confronted the church ever since the emancipation of the Negro 50 years ago, until now it is concerned with more than 8,000,000 colored people, largely in rural communities, scattered throughout 13 States. When the fact is considered that 30 per cent of these 8,000,000 people are illiterate, it can readily be seen that the church is committed here to a most important work.

The schools maintained by this board have a property value of approximately \$1,100,000.

Number of day schools.....	140
Number of teachers in day schools.....	426
Number of boarding schools.....	27
Total number of schools.....	167
Enrollment.....	18,108

The College Board was organized by the General Assembly of the Presbyterian Church in 1883. It represents the church in its work and relations with educational institutions, including those of college and university rank, as well as academies and special schools. Its function is to aid in the establishing and strengthening of such institutions. In this it differs from the board of education of the Presbyterian Church, the function of which is to aid students and to carry on religious work among Presbyterian students in tax-supported institutions.

Presbyterian colleges are so called for various reasons. Some are connected with the church by means of a charter provision requiring their trustees to be elected by an ecclesiastical body, such as a pres-

bytery or synod, or that all or a part of the trustees be members of the Presbyterian Church. Sometimes both of these charter requirements exist.

The relation thus established between the church and the institution is commonly called the "organic" relation. Other colleges called "Presbyterian" are so by reason of historical associations and the fact that a majority of their students and friends have been members of this church. Among such institutions are Washington and Jefferson College, Hamilton College, Coe College, and others.

The relation of the College Board to a Presbyterian college is an administrative or financial relation, not an ecclesiastical relation. This board gives out of its treasury from time to time whatever funds may be available toward the endowment or current support of certain Presbyterian colleges needing such help. The number of such institutions thus aided varies from year to year. With other colleges not receiving such financial aid the board sustains an advisory relation, counseling from time to time with boards of trustees or with presidents on matters of policy or administration.

During the college year closing June, 1917, there were in the list of institutions sustaining the above relations with the College Board 1 university, 44 colleges, 7 special and technical schools, 3 junior colleges, and 6 secondary schools. These institutions reported a net total enrollment of 27,180 students; a total income for current expenses during the year of \$4,446,936; a total value of grounds, buildings, and equipment of \$21,370,088; and productive endowment funds totaling \$17,060,056.

EDUCATIONAL WORK OF THE PROTESTANT EPISCOPAL CHURCH.

By WILLIAM E. GARDNER,
General Secretary, General Board of Religious Education.

The educational field of the Episcopal Church contains 12 theological seminaries, 3 church colleges, 112 church preparatory schools, and 7,000 Sunday schools. There are no separate boards of education or independent controlling organizations in charge of these agencies. With the exception of the General Theological Seminary, located in New York, which is under the control of the General Convention of the Church, all the institutions are directed by boards of trustees that are self-perpetuating or elected by diocesan conventions.

To unify all the educational work, the General Convention, which meets once in three years, has authorized a general board of religious education and committed to it the "unification and development" of all the educational agencies of the church. As the board

has been at work since 1913, a description of its organization and administration will represent the educational movements within the Episcopal Church.

The board is organized into four departments:

(1) The Department of Parochial Education studies and develops all the educational agencies within the parish, i. e., in Sunday schools (now called church schools), in the various efforts to stimulate Christian ideals in the home, and in the educational opportunities in clubs, guilds, and societies maintained by the parish.

(2) The Department of Secondary Education surveys the standards of religious education within the preparatory schools, organizes cooperation and conferences among the teachers and principals, and discovers the best methods of administration.

(3) The Department of Collegiate Education aims to strengthen the student in loyalty to the church, to further his religious education by the study of Christianity and church life, and to train him for Christian leadership. This department accomplishes much work through a national student council organized and conducted by the professors, college pastors, and students.

(4) The Department of Theological Education strives to raise the standards of the educational requirements for the ministry and to keep them in harmony with changing social conditions; it devises and promotes plans for recruiting the ministry and encourages the establishment of financial aid in the form of scholarships and fellowships.

All these departments call councilors to their aid. These are chosen because they are expert or practical workers in some particular educational field. At all times there are at least 50 persons giving volunteer and expert service as councilors.

Auxiliary to the general board and also organized by vote of the General Convention are eight provincial boards of religious education, one in each of the eight provinces of the church. These boards exist for the purpose of putting into operation the plans of the general board in so far as they are possible within the province, and to report to the general board educational conditions within the province.

Within each of the hundred dioceses there is a diocesan board of education, or a commission or an educational committee. These deal with local problems and apply principles and methods recommended by the general board.

With this view of the educational organization of the Episcopal Church, the following paragraphs will deal briefly with some of the activities which have commanded the attention and administration of these various boards.

CHRISTIAN NURTURE.

A general unity of organization and purpose has been introduced into the course of studies in the church schools of the various parishes. A system of Christian education from the home through adolescence has been defined, published, and in a large measure accepted. It is called the Christian Nurture Series, because it is committed to two fundamental principles: First, it believes in putting the child in the center; in other words, it recognizes the law of growth as the highest consideration. The plan of teaching is determined more by the kind of material capable of feeding the child's spiritual life than by the desire to have certain subjects studied. Secondly, the Christian Nurture Series recognizes a training in religion which is more than mere teaching. This training includes, but does not end with, instruction in truth. There must be a development of loyalty to the church, a fostering of the inner spiritual life, and a constant practice in Christian helpfulness.

Care has been taken to secure an orderly advance from course to course, each one being built upon previous instruction, and leading up to that which follows. Each lesson has a specific aim stated, and these aims in succession make a clearly defined pathway up which the child is led to the goal appropriate to each period of his development.

On account of the great diversity in grading in various schools and dioceses, no attempt is made to assign certain courses to definite departments; as, for instance, primary, junior, and senior. Each school is left to make the adjustment for itself as to where one department ends and another begins. Approximate ages at which the instruction is appropriate are suggested.

The course is not Bible-centric. While all the valuable material in the Bible is ultimately placed before the pupil, there is a five-fold aim throughout the entire series; the study of the Scripture, training the memory, training in church loyalty, training in devotional life, and training in community service; all find place in each course, to the end that the young Christian is helped to give expression to his Christianity as he studies it.

During 1917, 108,000 teachers and pupils studied this course.

A BETTER EQUIPPED MINISTRY.

The board has also given much attention to the new studies which should enter into the training of the minister in order that he might fulfill the new demands made upon the church. The General Convention of the Episcopal Church in 1916 instructed the board to make a study of the training of the minister and formulate such

new canons as the study would reveal to be necessary. The board committed the task to a council composed of men, some of whom were expert in theological education and others ministers in various types of communities, and therefore familiar with the new demands made upon the church by modern life. They proposed five principles upon which should be based any requirements for the education of the ministry. The first principle is that there should be a full normal standard, formulated by the canons of the church, mandatory in character, put to the fore as descriptive of the church's mind, and expressed in simple and general terms intended to indicate subjects only.

The second principle is that of electives. To the above normal standard should be added the requirement that each candidate for the ministry must offer some electives in order that some degree of specialization may take place in his preparation.

The third principle has to do with a minimum standard, which shall be sufficiently low and elastic to meet all proper needs and conditions, but this standard must be reached by the process of obvious subtraction and departure from the full normal standard, and shall be strictly limited to well-defined special cases.

The fourth principle defines these special cases to be (*a*) men of 30 years or over, (*b*) men of other race or speech, (*c*) men who desire to minister in a localized field.

The fifth principle concerns the interpretation and definition of the subjects of examination and places the responsibility upon bishops and examining chaplains, with the advice and counsel of the general board of religious education.

Around these five principles is gathered the discussion regarding the education of the minister and the method of his admission into office. The new canon will be presented to the general convention, which meets in Detroit in October, 1919.

THE APPROACH TO STUDENTS.

The Episcopal Church has approximately 500 professors and 17,000 students in colleges and State universities. In order to reach these and make them feel that their period of academic study is not a period of separation from the church, the general board has organized the national student council, which is the medium by which the church approaches the student with requests for study, worship, missionary giving, and enlistment, and community service. In all the colleges and State universities are local organizations of Episcopal students, in some cases affiliated with the Christian association. These are called "units." A unit becomes a member of the national student council when it agrees to fulfil the following minimum program:

(1) *Worship*: The unit shall make provision for attendance at a church service once a week, which if possible shall be the holy communion, and shall also make provision for a monthly corporate communion.

(2) *Religious education*: The unit shall make provision for religious education under church auspices at least during Advent and Lent.

(3) *Church extension*: The unit shall undertake to extend the church both in the college and throughout the world by personal prayer, work, and contributions.

(4) *Service*: The unit shall provide opportunities for personal service in the church and in the community.

(5) *Meetings*: At least four meetings of the unit shall be held each year.

The advantages of this council are many: First, it unifies the approach of the church to the student. The appeals made by the various organizations of the church for the attention, interest, and investment of the student are rapidly increasing. By this national student council they come in an orderly process and receive at all times the best attention of the student. Secondly, the national student council is a democratic organization; its control rests with the students and with the members of the faculty, who are Episcopalians. These two groups always constitute a majority. And in the third place, the council makes no attempt to define the type of local organization. Any society within the college or any group of Episcopalians who are willing to fulfill the minimum program may be recognized as a unit. The emphasis is not on the organization, but on the plan of work.

WEEK-DAY RELIGIOUS INSTRUCTION.

The board is active in promoting week-day instruction in religion. For many years it has maintained a day school for religious instruction in connection with the public schools of Gary, Ind. This is an experimental station. Here are tried out those methods of cooperation with the public school which will render religious instruction a part of the child's total education. This school has demonstrated that it is practicable to maintain a week-day religious school and that the children will attend such a school regularly and study as hard as in the public school.

This experimental station has had a good deal to do with developing public sentiment, which is more and more coming to sustain religious day schools cooperating with public schools.

Closely related to the Gary experiment is the encouragement given to religious instruction by the credits offered in certain high schools throughout the land for work done in the Bible outside of school time. The action of the State board of Virginia is typical. By arrangements with the University of Virginia, an official syllabus

of Bible study for high-school credits has been published and has become operative. All Saints, Lakewood, N. J., and Grace Church, Grand Rapids, Mich., are types of parishes where arrangements have been made with public-school authorities so that the church conducts Bible study, for which credit is given in the public schools.

SUMMER SCHOOLS.

The general board through its provincial and diocesan boards has facilitated the movement of summer schools. In the summer of 1918, 21 summer schools were held in various parts of the United States. A few were exclusively for clergy; the others were for church workers. In many cases in these summer schools courses are now given so that the work done may count for credits toward a diploma of the general board. Under this plan a portion of the work is done in summer schools and another portion through correspondence or home reading, with examination.

TEACHER TRAINING.

The war has revealed more clearly than ever before the need of spiritual leadership in the life of the Nation. In a thousand ways it has shown that spiritual ideals control mankind, that the conscience of a nation can be at its best only when the citizens of that nation recognize and obey the laws of God. These convictions have become the basis of a vast movement for the training of all the religious teachers of the youth of the land in homes and schools. In the autumn of 1918 the general board did its share in a large interdenominational campaign by which thousands of teachers were encouraged to begin the study of a standard course of teacher training, containing 120 units, the completion of which would take three years. The unique feature of this standard course is its turning from the content of the Bible to the method of teaching Christianity. Such subjects as "How to teach the life of Christ," "How to teach the mission of the church," "How to train the devotional life," show conclusively that the church is seeking for definite methods in the accomplishment of its spiritual work with the young.

EDUCATION AND THE WAR.

Throughout the years of the war the board endeavored to stimulate widespread patriotic effort. The buying of Liberty bonds, of war-saving stamps, gifts to the Red Cross, the Young Men's Christian Association, and the Armenians and Syrian relief occupied the attention of the various institutions of the church.

Feeling the depression that would ultimately come over the country as the casualty lists came in, the board published and issued a pamphlet entitled, "Studies in Religion for War Times." This was circulated among the clergy and teachers of the church with the intention of providing material to maintain spiritual morale in the midst of personal loss.

LATTER-DAY SAINTS' SCHOOLS.

BY HORACE H. CUMMINGS,
General Superintendent L. D. S. schools,

I. HISTORY AND FUNCTION OF LATTER-DAY SAINTS' SCHOOLS.

In Utah, as in New England, parochial schools preceded the public schools. True, our State university was founded, so far as the legislative act was concerned, in 1850, less than three years after the Utah pioneers arrived, but it did not perform its functions as a university until nearly a quarter of a century later. The common schools were supported by tuition entirely until the later seventies, and from 1875 until little more than a decade ago most of the high-school work outside of the two largest cities was done by our church schools.

The reason for the maintenance of an expensive system of church schools, when the State schools are free and so efficient, is a widespread feeling that religious education, to be of force and value, must be given with the same care and efficiency and at the same stage of the child's development as secular education.

II. STATISTICAL.

The following brief table of statistics will show the number of schools in session during the last biennium; their location, number of teachers, highest enrollment, and average attendance. All of them give four years of regular high-school work, and the first six give, in addition, two years of college work in education to prepare teachers for the public schools, where there is always a great demand. The Brigham Young University offers full college courses and confers degrees.

Statistics of Latter-Day Saints' schools.

Name.	Location.	Number of teachers.	Enroll- ment.	Average attend- ance.
1. Brigham Young University.....	Provo, Utah.....	85	1,410	1,307
2. Brigham Young College.....	Logan, Utah.....	34	924	666
3. Dixie Normal College.....	St. George, Utah.....	25	403	372
4. Snow Normal College.....	Ephraim, Utah.....	13	332	238
5. Ricks Normal College.....	Roxberg, Idaho.....	25	473	401
6. Weber Normal College.....	Ogden, Utah.....	22	518	422
7. Big Horn Academy.....	Cowley, Wyo.....	7	118	110
8. Cassia Academy.....	Oakley, Idaho.....	7	165	152
9. Emery Academy.....	Castle Dale, Utah.....	7	109	90
10. Fielding Academy.....	Paris, Idaho.....	10	250	214
11. Gila Academy.....	Thatcher, Ariz.....	9	226	167
12. Knight Academy.....	Raymond, Alberta, Canada.....	8	202	154
13. Latter-Day Saints' University High School. ¹	Salt Lake City, Utah.....	43	2,141	1,296
14. Murdock Academy.....	Beaver, Utah.....	8	201	160
15. Millard Academy.....	Hinckley, Utah.....	10	174	150
16. Oneida Academy.....	Preston, Idaho.....	12	227	213
17. Snowflake Academy.....	Snowflake, Ariz.....	7	138	116
18. St. Johns Academy.....	St. Johns, Ariz.....	6	86	77
19. San Luis Academy.....	Manassa, Colo.....	5	73	55
20. Utah Academy.....	Vernal, Utah.....	7	225	156
21. Juarez Academy ¹ .	Colonia Juarez, Chihuahua, Mexico.			

¹ Not reported.

The total disbursements for these schools for the biennium amounted to \$1,208,784.78.

The church also maintains eight theological seminaries and has authorized the establishment of seven more next year. These are classes held in small buildings owned by the church and located as near as possible to large State high schools, where a great many Latter-Day Saint children attend. The church furnishes a competent teacher who teaches the Bible to the high-school students at such periods during the day as will not interfere with their other lessons. The students get credit toward graduation for this work; otherwise there is no connection between the two.

In our missions on the islands of the Pacific about 40 small schools are maintained by missionaries and others. Most of these schools are small, but the Maori Agricultural College, in New Zealand, is an institution having a large enrollment of native young men.

Many other institutions of an educational character, such as Sunday schools, Young Men's Mutual Improvement Associations, primary associations, religion classes, etc., which are taught by volunteer teachers without pay, are maintained by the church, and most of its members belong to two or more of them. This organization calls into action nearly every member, as a host of teachers and officers are required to do this vast amount of work with its study and planning and responsibility to secure success in each individual case. This is a comprehensive system of practical education in social activities and public duties. Special courses are prepared for each organization, and each has a field of its own, while all together form a well-balanced whole.

III. TEXTBOOKS USED AND COURSES OFFERED.

Contemporaneous with the State, the church schools adopt uniform textbooks, which it does every five years, and follow closely the books adopted by the State. This is done in the interest of economy and efficiency, as we get a reduced price and adopt the latest and best texts. It also makes the work more uniform throughout this widely scattered system of schools.

The courses offered are similar to those given in State high schools, and include work in English, history, mathematics, languages, art, music, etc., and a liberal amount of industrial work. In fact, we claim to be pioneers in vocational school work, for as far back as 1877 President Brigham Young provided in a deed of trust, giving a large tract of land to the college at Logan which bears his name, that agriculture and mechanic arts as well as sewing and cooking should be taught to the students of the institution, and he hoped that the funds of the school would grow until it could give to each man graduating from it \$500 with his diploma to buy a team, wagon, and plow to enable him to go at once to work in the soil, so close were theory and practice connected in his mind. This impress has followed all our church schools until the present time.

IV. HOME PROJECT WORK.

The most important development in our school system during the biennium is what we call our home project work. It came about to meet a need of rural high schools, which are nearly all situated in farming districts. From the beginning, a great many young men and young women have been prevented, by the press of home work, from entering school when it began in the fall, or remaining until it closed in the spring, and, therefore, many of them would not enroll at all, and those who did were under a handicap. Winter courses were provided to meet this condition, but they overloaded the teachers with school work, as extra teachers could not be hired for a short winter term. Holding school on Saturdays and thus shortening the school year, was tried for a number of years, but this proved too strenuous for both teachers and students.

At length it was decided to shorten the school year two months, allowing the students a month longer at home in the harvest field in the fall, and another in the spring for plowing and planting. During the winter, book work is emphasized and classes are arranged so that the students can earn three units of credits, mostly in the intellectual, or cultural subjects. In the industrial subjects the students are assisted in projecting the work they will have to do at home during the summer, besides learning the fundamental principles of each subject taken. These home projects are properly prepared and

passed on by the teacher, then, after school closes for summer vacation, the teachers of industrial subjects visit the homes of the students once a week to see how the work is progressing. About one hour a day of study or reading is required during the summer, and for this work and study, one unit of credit is allowed, making it easy for each student to earn his regular four units of credit each year, and to graduate in four years, prepared to enter college, or the world of work.

The visiting teachers check up carefully on the home work, evaluating it as they do work done in school. They give the best expert advice concerning the care and treatment of crops, or stock, or cooking, or sewing, etc. Students give weekly reports to their teachers, who forward to the superintendent monthly reports of all the achievements of students.

Besides this work, the teachers check up on the social and church activities of students and keep a record of the number and kind of amusements attended, the religious services, church work, charities, those who attend regularly to their prayers, abstain from using tobacco, liquor, etc. This maintains the school standards throughout the whole year, and the boy who quits smoking to enter school does not resume the habit as soon as school closes. Not 1 per cent of our boys smoke after being in our schools a few weeks. When they live for four years in this way the force of the habit tends to keep them in line continually.

Some of the good results of this work, which was first tried out two years in one of our schools and is now required in all our rural schools may be summed up as follows:

A much greater number of young people go to school.

All are able to earn full school credits and graduate in four years, as in the old way.

Labor is dignified and made more scientific and efficient.

Study is made more practicable and productive.

The school and home are brought closer together to the vast improvement of both.

The moral and social instincts are guarded and guided, and the high standards of the school maintained throughout the whole year.

Parents get the help of their sons and daughters for two more months in the year, and when it is most needed, which obviates the employment of transient labor, which is often unsatisfactory and even dangerous.

Better and more crops are raised, and all home work is improved.

It educates toward the farm instead of the city and prepares the children to take their parents' places on the farms, so that our best farms do not fall into the hands of foreigners, because parents from

the farms have sent their children to schools in cities for so many years that the children lose their love for the farm and refuse to live there.

While the experiment is still in its infancy, we have great hopes of it as solving some important problems of the home and school.

ROMAN CATHOLIC SCHOOLS.

By PATRICK J. McCORMICK,
Professor of Education, Catholic University of America.

The Catholic school system in the United States at present embraces elementary or parish schools, high schools, academies, colleges, ecclesiastical seminaries, universities, and a great variety of schools of a special or vocational type, such as novitiates, normal schools, industrial schools, schools for Indians, Negroes, orphans, etc. The elementary schools represent by far the largest division of the system. They are now established over the entire country, and are most numerous naturally in those dioceses where the Catholic population is greatest. A substantial growth is noticeable every year in their number and enrollment. Secondary and higher education has also consistently expanded in recent years, the biennium of 1916-18, in spite of war conditions, having been no exception. As there are important points of difference to be noted in the administrative arrangements for the various departments of the system each of them is reviewed separately in this report.

PARISH SCHOOLS.

The Catholic Church in the United States consists of 14 archdioceses and 87 dioceses. Each of these administrative divisions of the church in this country has its elementary schools. The total of these schools for 1917-18 was 5,748, a gain of 151 over the preceding year, 1916-17. The total of pupils was 1,593,407, an increase of 95,060 pupils in one year. The statistics in detail for each diocese may be found in the Official Catholic Directory (Kenedy, N. Y.).

The ordinary unit of administration for the elementary schools is the diocese. All parish schools consequently come under the immediate jurisdiction of the bishop, the head of the diocese. This is similar to the public-school system in which the administrative unit is the State. The diocesan systems are usually presided over by school boards and superintendents, or other officers appointed by the bishop of the diocese, another point of resemblance to the State system in the United States, whose ordinary governing authorities in school

matters are State education boards and superintendents. The following table shows the personnel of the diocesan school boards and officials for 1917-18:

DIOCESAN SCHOOL BOARDS AND SUPERVISING OFFICERS.

[Archdioceses are indicated by an asterisk (*).]

Ecclesiastical province.	Diocese or archdiocese.	Title of governing board and number of members.	Name and title of supervising officer.
Baltimore	*Baltimore.....	Examiners of teachers (2).....	Rev. Lawrence Brown, superintendent (Baltimore city).
		Examiners of schools: For Baltimore (4)..... For Washington (4)..... For rural districts (4).....	
	Richmond.....	Examiners of schools: Northern and western district (2). Southern and eastern district (2).	
	Wheeling.....	Examiners of schools: 3 district boards (1, 2, and 2)....	
	Wilmington.....	School board (4).....	
	*Boston.....		
	Burlington.....	School board (3).....	Rev. Augustine F. Hickey, S. T. L., supervisor of schools.
	Fall River.....	Diocesan school visitors (2).....	
	Hartford.....		Rev. W. J. Fitzgerald, S. T. L., diocesan supervisor of schools.
	Portland.....	School visitors (4).....	
Boston	Providence.....	Examiners of teachers (3).....	
		Examiners of schools (8).....	
	Springfield.....	School board (13).....	
			Rev. John F. Conlin, P. R., diocesan school visitor; Rev. P. F. Doyle, assistant diocesan school visitor.
	Alton.....	Diocesan school board (6).....	
	Belleville.....	Diocesan school board (7).....	
	*Chicago.....	Diocesan school board (3).....	
	Rockford.....	School board: 4 district boards (6, 4, 4, and 4).....	
	Columbus.....	School board (6).....	Rev. John P. Curran, super- intendent of schools.
	Detroit.....	Examiners of teachers (6).....	
Chicago		School board: 6 district boards (15, 12, 3, 3, 3, and 3).....	
	Fort Wayne.....	Diocesan school board (9).....	Rev. A. E. Lafontaine, su- perintendent of schools.
	Cleveland.....		Rev. William A. Kane, su- perintendent.
	Grand Rapids.....	School board (8).....	
	Louisville.....	School board (10).....	
	Nashville.....	Examiners of teachers and diocesan school board (7).....	Rev. S. A. Stritch, D. D., su- pervisor of diocesan schools.
	Toledo.....	School board (7).....	
	Davenport.....	School board (10).....	
	Lincoln.....	Diocesan school board (3).....	
	Omaha.....	Diocesan examiners of teachers (10).....	
Cincinnati	Sioux City.....	Diocesan school board (10).....	
	Green Bay.....	Diocesan school board (6).....	
	La Crosse.....	Diocesan school board (4).....	Rev. P. Grosnick, secretary and superintendent.
	Marquette.....	School board (7).....	
	*Milwaukee.....	School commission (7).....	
	Superior.....	Diocesan school board (8).....	
	Dallas.....	School commission (3).....	
	Galveston.....	Diocesan school board (3).....	Rev. L. J. Harrington, school examiner.
	Little Rock.....	Diocesan school board (7).....	Rev. J. B. O'Leary, diocesan director of schools.
	Mobile.....	Diocesan school board (6).....	Rev. Thomas V. Tobin, su- perintendent.
Milwaukee	*New Orleans.....	Catholic board of education (15) (10 ecclesiastics, 5 laymen).	Rev. L. J. Kavanagh, super- intendent.
New Orleans			

DIOCESAN SCHOOL BOARDS AND SUPERVISING OFFICERS—Continued.

Ecclesiastical province.	Diocese or archdiocese.	Title of governing board and number of members.	Name and title of supervising officer.
New York.....	Albany.....	Diocesan school board (11).....	Rev. Joseph A. Dunney, inspector of schools.
	Brooklyn.....	Kings County school board (20).....	Rev. Joseph V. S. McClancy, inspector of schools.
	Buffalo.....	Queens County school board (5). Nassau County school board (4). Suffolk County school board (5). Diocesan school board (6).....	
	Newark.....	School board (18).....	Rev. Francis T. Kanaley, superintendent of parochial schools.
	*New York.....	New York City and Yonkers school board (23). Westchester County school board (5). Orange and Rockland Counties school board (5). Ulster and Sullivan Counties school board (4). Putnam and Dutchess Counties school board (4). School board (5). School board (2).....	Rev. John A. Dillon, superintendent of schools; Rev. William F. Jawor, assistant superintendent of schools. Rev. Joseph F. Smith and Rev. Michael J. Martin, superintendents of schools.
New York.....	Ogdensburg.....		Rev. Joseph S. Cameron, superintendent of schools.
	Rochester.....	School board (7).....	Rev. Charles F. McEvoy, superintendent of schools.
	Syracuse.....	School board (3).....	Rev. William J. McConnell, superintendent of parochial schools.
	Trenton.....	Examiners of teachers (3).....	
Oregon.....	*Oregon City.....	Diocesan school board (6).....	Rev. Edwin V. O'Hara, diocesan superintendent of schools.
Philadelphia...	Erie.....		Rev. John M. Gannon, D.D., D. C. L., superintendent of schools.
	Harrisburg.....	School board (11).....	Rev. John E. Flood, superintendent of parochial schools; Rev. William P. McNally, assistant superintendent.
	*Philadelphia.....	Diocesan school board (11).....	
	Pittsburgh.....	Examiners of school teachers (10)....	Rev. Ralph L. Hayes, superintendent of schools.
Ruthenian-Greek.	St. Louis.....	Diocesan school board (23). Diocesan school board (3).....	
	Concordia.....	Diocesan school board (5).....	Rev. Patrick Dooley, superintendent of schools.
	Kansas City.....	Diocesan school board (6).....	
	Leavenworth.....	Diocesan school board (10).....	
	*St. Louis.....	Diocesan high-school board (3). Diocesan school board (14).....	
St. Paul.....	Wichita.....	Diocesan school board (4).....	
	Pismarck.....	Parochial school board (5).....	Rev. John P. Funk, diocesan superintendent of schools.
	Crookston.....	School board (9).....	
	Duluth.....	School board (11).....	Very Rev. J. Baker, V. G., inspector of schools.
	Fargo.....		
	S. Cloud.....	Diocesan school board (5).....	
	S. Paul.....	School board (6).....	
	Sioux Falls.....	Diocesan school board (5).....	
	Winona.....	School board (7).....	
San Francisco..	Montrey-Los Angeles.	Inspectors of diocesan schools (8).....	
	*San Francisco.....		
Santa Fe.....	Denver.....	School board (4).....	Rev. Ralph Hunt, S. T. L., superintendent of schools.

It will be observed that of the 14 archdioceses, and 87 dioceses, a total of 67 have some form of school supervision provided. This is more remarkable since many of the dioceses owing to the scattered

condition of the Catholic population have very few schools. The diocese of Cheyenne, for example, with a Catholic population of 19,000, 18 churches and resident priests, and 27 mission churches has only 2 parish schools. The diocese of Baker City, with a Catholic population of 7,359, 22 churches and resident priests, and 26 mission churches, has only 6 schools. Ten dioceses have each less than 10 schools; 22 have each less than 20. The number, therefore, of those having some form of school supervision among the dioceses with a considerable school enrollment is proportionately very high.

There has been a notable increase in the number of supervisory officers for the parish school systems. Former reports have mentioned the steady increase in the ranks of diocesan superintendents, but there have been no published accounts of the increasing number of community inspectors who are to-day the most important auxiliaries of the diocesan superintendents. These inspectors are members of the teaching communities appointed to supervise the schools of their respective communities. While many of them cover a wide territory in their work of inspection, many others are limited to the schools of their community situated in a diocese. All of the large communities engaged in elementary school work have their inspectors. In recent years it has become a matter of diocesan organization to have local or diocesan inspectors for each diocese. These latter usually constitute a board of inspectors under the chairmanship of the diocesan superintendent and cooperate with the latter official in the supervisory work of the diocese. An idea of their number may be had from the lists published in the reports of the superintendents. In Philadelphia, for example, there were 15 of these inspectors in 1917-18, and in New York, 17. The diocese of Hartford had three inspectors for one teaching community. The results of the community inspector's efforts have been so gratifying that it is safe to predict that their appointment will become a universal practice in the Catholic system before many years.

HIGH SCHOOLS.

No other department in the Catholic school system has attracted more general attention in the past decade than the secondary. A marked activity has set in in the various teaching communities to meet the increasing need for high schools created both by the rapidly growing parish-school system on the one hand and the colleges on the other. The entrance into the field of the parish high school and the central high school, the latter for the accommodation of the children of a larger section or of a group of parishes, has had a pronounced effect on the movement.

The proceedings of the Catholic Educational Association for the past 10 years bear witness to the interest manifested in the move-

ment by Catholic educators and their concern for its proper control and direction. Two important reports (1912 and 1915) have been submitted to the association by the committee on secondary education appointed to study the movement. The later (1915) showed that there were 1,276 Catholic secondary schools in the United States. Of these 473 were for boys and girls; 125 were exclusively for boys; 577 were exclusively for girls; 100 were connected with colleges. They enrolled in the year reported a total of 74,538 pupils, 34,798 of whom were boys and 39,740 were girls. A more detailed study of the high schools containing boys showed that of the 438 schools investigated, all but 29 were directly connected with one or more parish schools. This was not found to be true of the high schools for girls. Of the 577 schools listed only 165 had any parish connections, the majority being academies conducted independently of the parish schools by the teaching communities.

Abundant evidence shows that the high-school movement is spreading rapidly. A comparison of the two reports mentioned above indicates this. As compared with the 1912 figures of 310 high schools containing boys, the 1915 report designates 599—a very substantial increase. Many other indications point to their annual increase in number and efficiency.

Since the year 1912 the Catholic University of America, Washington, D. C., has undertaken to affiliate Catholic high schools which are able to meet certain standard requirements in teaching staff, equipment, and courses of study. This movement has spread every year and in 1918 the list of affiliated high schools contained 144 institutions distributed according to States as follows: Alabama, 2; Colorado, 2; Connecticut, 3; District of Columbia, 1; Florida, 3; Georgia, 2; Illinois, 5; Indiana, 3; Iowa, 11; Kansas, 3; Kentucky, 5; Louisiana, 1; Maryland, 1; Massachusetts, 5; Michigan, 2; Minnesota, 4; Missouri, 9; Nebraska, 2; New Jersey, 1; New York, 3; Ohio, 22; Oklahoma, 3; Oregon, 2; Pennsylvania, 22; South Dakota, 1; Tennessee, 2; Texas, 15; Virginia, 1; Washington, 2; Wisconsin, 6. Annual examinations are set for all affiliated high schools by the university, the pupils receiving their credits on the basis of their standing in them.

COLLEGES.

Institutions listed as colleges for men in the Official Catholic Directory for 1918 number 217, or one more than for the preceding year. As may be seen from the statistics of enrollment to be found in Volume II of the Report of the United States Commissioner of Education not all of these institutions have students of college grade. Ten years ago (1908) a report on Catholic colleges for men was submitted to the Catholic Educational Association which showed that in

a list of 116 there were 16 institutions which had no students above the high school. There has undoubtedly been an increase in the number of Catholic colleges in recent years. The total in the directory, however, must include other institutions besides colleges. A list supplied by the Catholic Educational Association for this report contains a total of 176 colleges, of which 35 are women's colleges. Almost all of these institutions are members of the college department of the Catholic Educational Association.

Most of the colleges for men and all of those for women are conducted by the teaching orders and communities. About 14 colleges, like Mount St. Mary's, Emmetsburg, Md., one of the oldest Catholic institutions in the United States, are conducted by members of the secular clergy. Some of them, however, properly belong to the group of preparatory seminaries.

PREPARATORY SEMINARIES.

The preparatory seminary is really a college open to aspirants to the priesthood whose courses prepare for entrance into the larger or theological seminary. Frequently it bears the name "cathedral college," as in New York City and Chicago, where the institution is conducted by archdiocesan authority and is open to students from the archdiocese who aspire to enter the secular priesthood. Its course is chiefly classical and extends over five or six years. Occasionally this institution is to be found in a diocese which has no theological seminary of its own, as, for example, the diocese of Hartford. Again it forms the classical department of the larger seminary as in Milwaukee and San Francisco and is not distinguished as a separate institution. In the United States there are 15 preparatory seminaries for the secular clergy situated in the archdioceses of Chicago, Milwaukee, Philadelphia, New Orleans, New York, St. Louis, and in the dioceses of Brooklyn, Cleveland, Detroit, Galveston, Hartford, Little Rock, Omaha, Rochester, and San Antonio.

The preparatory seminaries are, as a rule, diocesan institutions, and are taught by the members of the secular clergy. St. Charles' College, Catonsville, Md., has the same educational purpose as the preparatory seminary but is not diocesan in its organization or control. It is conducted by the Fathers of St. Sulpice and is the classical department of St. Mary's Theological Seminary, Baltimore, Md.

THEOLOGICAL SEMINARIES.

The theological seminary offers, as a rule, two years of philosophy and four years of theology. This institution is the lineal descendant of the old episcopal or cathedral school which goes back to the early days of Christianity as the first school for the training of the clergy.

It was revived by the Council of Trent in the sixteenth century and made obligatory throughout the Catholic world. In this country there are 23 institutions of this kind, situated in the archdioceses of Baltimore, Boston, Cincinnati, Milwaukee, New York, Philadelphia, St. Louis, St. Paul, San Francisco; and in the dioceses of Altoona, Brooklyn, Buffalo, Cleveland, Columbus, Denver, Detroit, Galveston, Indianapolis, Little Rock, Newark, and Rochester.

With the exception of three all of the theological seminaries are conducted by the members of the secular priesthood drawn for the most part from the clergy of the diocese. The largest theological seminary in the United States—St. Mary's Seminary, Baltimore, Md.—is under the charge of the Fathers of the Society of St. Sulpice, a community of secular priests having for its purpose the education of the secular clergy. They also conduct St. Patrick's Seminary, Menlo Park, Cal. At Baltimore 330 students were enrolled in 1917-18. These came from all parts of the United States.

SEMINARIES OF RELIGIOUS ORDERS.

The Official Catholic Directory enumerates 106 seminaries for the year 1917-18. The preparatory and theological seminaries number 38; the remaining 68 seminaries are the training schools of the religious orders of men. Intended for the recruits of the respective orders or communities they are conducted by the religious organizations themselves and present certain distinguishing characteristics owing to the peculiar constitution or function of the organization they serve. The Jesuits, for example, have their novitiates and scholasticates; the Congregation of the Holy Cross has its novitiates and seminaries; the Marists have their seminaries and colleges. All the orders, however, whose members become priests, give the candidates for admission to their ranks a course having this at least in common that it embraces the classical or college courses, philosophy, and theology. In a certain sense their institutions correspond to the preparatory and theological seminaries intended for recruiting the secular clergy.

UNIVERSITIES.

A total of 22 Catholic institutions in the United States are designated in the Official Catholic Directory as universities. These institutions are for the most part conducted by the religious orders and congregations. The Society of Jesus, or Jesuits, conducts 12, viz, the University of Detroit, Detroit, Mich.; St. Mary's University, Galveston, Tex.; Creighton University, Omaha, Nebr.; Gonzaga University, Spokane, Wash.; Georgetown University, Washington, D. C.; Loyola University, Chicago, Ill.; Marquette University, Mil-

waukee, Wis.; Loyola University, New Orleans, La.; Fordham University, New York, N. Y.; St. Louis University, St. Louis, Mo.; St. Ignatius University, San Francisco, Cal.; University of Santa Clara, Santa Clara, Cal. The Vincentians, or Fathers of the Congregation of the Mission, operate three, viz, Niagara University, Niagara Falls, N. Y.; De Paul University, Chicago, Ill.; and the University of Dallas, Dallas, Tex. The Benedictines conduct two, viz, the Catholic University of Oklahoma, Shawnee, Okla., and St. John's University, Collegeville, Minn. The Holy Cross Fathers conduct two, viz, Notre Dame University, Notre Dame, Ind., and Columbia University, Portland, Oreg. The Fathers of the Holy Ghost conduct Duquesne University, Pittsburgh, Pa. St. Mary's University, Baltimore, Md., is conducted by the Sulpician Fathers. The Catholic University of America, Washington, D. C., founded by Pope Leo XIII, and ranking as a pontifical university, is conducted by the Catholic hierarchy of the United States.

Detailed statistics in regard to faculties, departments, enrollment of students, etc., may be found in Volume II of this document.

NOVITIATES AND NORMAL SCHOOLS.

The novitiate or training school for the members of a religious community has already been mentioned in connection with the seminaries of the religious orders. As this institution is common to all religious congregations, those of priests and brothers, as well as those of sisters, it needs to be noted again as perhaps the most common type among the schools of a special or vocational character. The brothers of the Christian Schools (Christian Brothers), for example, in each of their four provinces for the United States have a school of this kind, called in one instance, Ammendale Normal Institute (Ammendale, Md.) for the province of Baltimore; and in another, St. Joseph's Normal College (Pocantico Hills, N. Y.) for the province of New York. The Brothers of Mary, another teaching community, has its novitiate in Mount St. John, Dayton, Ohio, and a scholasticate in Mount St. John Normal School, also in Dayton.

The novitiate gives that training required by the community to fit its members for the religious life. In the case of teaching communities, however, additional training is provided for the preparation of the teacher. This holds both for the communities of men such as the brotherhoods, and the communities of women such as the sisterhoods. The course closely corresponds to that of the normal school. Lest the impression be had that this school is of recent origin, or that the practice of giving a normal course to Catholic teachers is new in this country, it may be observed that the maintenance of such a school has been a matter of obligation in all teaching communities since the Third Plenary Council of Baltimore held in 1884.

In addition to the normal-school course given before the novice enters upon his teaching career, a number of communities conduct summer schools and institutes in the novitiates for the improvement of teachers in the service. The summer-school courses usually continue for five and six weeks.

Catholic universities have in recent years offered summer courses to teachers and these have been largely attended by the religious. In 1918 such summer sessions were held at Creighton University, Marquette University, Notre Dame University, and the Catholic University of America. It may be of interest to note that in the latter institution the summer session is conducted under the auspices of the Catholic Sisters College; it is open only to religious and lay women and is chiefly attended by the former.

Normal schools for lay women are also found in the Catholic system. Conspicuous examples are the Academy and Normal School of the Holy Names of Jesus and Mary, Seattle, Wash., and Holy Names Academy and Normal School, Spokane, Wash., conducted by the Sisters of the Holy Names; St. Catherine's Normal Institute, Baltimore, Md., conducted by the Sisters of the Holy Cross, and the Catholic Normal School, Milwaukee, Wis., which had a faculty of six priests and three laymen in 1917-18. As these institutions are at present classified with the academies and colleges it is impossible to designate their exact number.

SCHOOLS FOR INDIANS.

Catholic schools for the education of Indian children numbered in 1917-18, 63. They include 8 day and 55 boarding schools, and in many instances offer industrial and agricultural training. Of the boarding schools, 3, located in Alaska, receive some support from public funds, in the form of salaries paid certain of their teachers. Of the remaining boarding schools, 14 are partly supported, not out of public funds, but out of Indian tribal funds. The balance of these schools (38) are entirely supported by the church, as is the case with all the day schools.

SCHOOLS FOR NEGROES.

Catholic schools for Negroes include parish establishments, agricultural and industrial schools and some colleges. They represented a total of 132 in 1917-18. These schools are supported by endowments and by the voluntary offerings of Catholics collected and distributed through the Catholic Board for Mission Work among the Colored People, and the Commission for Catholic Missions among the Colored People and Indians.

SCHOOLS FOR ORPHANS.

Another class of schools of a special character, comprising a considerable number of educational establishments in the United States are the schools for orphans. Only 11 of the dioceses of the country were without orphan asylums in 1917-18. Two dioceses, viz., Philadelphia and Newark, had as many as 15 each. In all the dioceses there were 297 orphan schools, accommodating 46,474 children. The total, taken from the Official Catholic Directory, includes the formatories.

A notable feature of the education of the orphan for many years has been the industrial training, the aim of the Catholic authority having been to send the young man or woman into the world at the completion of his training as a self-supporting and industrious member of the community. A similar purpose has actuated those charged with the work of reforming the wayward; many of these institutions being now in fact as well as in name industrial schools of high degree of efficiency.

Among other schools of a special character which are annually increasing in number are those for the deaf and dumb, for the blind, for the feeble-minded, for most of which no general statistics are available. The schools for the deaf and dumb now number 12.

CHAPTER XXII.

EDUCATIONAL WORK OF THE YOUNG MEN'S CHRISTIAN ASSOCIATIONS.

By WILLIAM ORR,

Senior Educational Secretary of the International Committee.

CONTENTS.—Historical sketch—Aims and objectives—Fields of educational work: City associations; railroad branches; Army and Navy; county work; industrial department; colored work; boys' work; foreign field; war work—Program of association educational work; statistical tables.

HISTORICAL SKETCH.

At the time when the first Young Men's Christian Associations in North America were organized in 1851, at Montreal and Boston, there appears to have been little thought of including a definite educational program in the work of these associations. Such educational work as was done was limited to reading rooms, libraries, a few lectures, and, from time to time, the organization and maintenance of literary societies. The great emphasis placed upon distinctively religious work appears to have largely occupied the energies of the leaders in the movement. In fact, there is some evidence to support the view that other activities than those distinctly religious were regarded as secular and as possibly inimical to what was conceived to be the real purpose and spirit of the association.

Despite this attitude, the manifest desire of many members of the associations for opportunities to develop along intellectual lines led little by little to the recognition and introduction of systematic educational work. The records of the movement show a steady growth in the educational activities mentioned above. In 1866, 15 years after the initiation of the work on the North American continent, however, only four associations reported class work, with a total of but 60 students. It is notable that the subjects taught were mainly in the ancient languages, and for the purpose of aiding divinity students in preparation for the ministry.

About 1880, the conception of the field of the association in its work for young men began to take on new content and to develop a new meaning. It was agreed that opportunities for physical, mental, and social development were in no way contrary to the main purpose of the association—that is, the fostering of the spiritual life—but contributed most effectively to this end.

In 1889, the International Convention, for the first time, indorsed educational work as a function of the association. The subject had also been discussed for several years previously at State conventions. A number of the leaders gave the support of their influence to this form of work. Reading rooms, libraries, and lectures were supplemented by practical talks and educational groups. Class work was extended to include commercial and language subjects; and from 1890 to 1893, beginnings were made in teaching industrial and science courses. It is noteworthy in this connection that the associations were coming to realize that their large field of service in educational work was in connection with preparation for, and training in, vocations.

In 1893, the International Committee established a department of education with George B. Hodge as senior secretary. This department was made responsible for the studying of the fundamental principles of the work and for gathering data from the various associations on which suggestions for development could be made. Under the impulse of this new departure, a few local associations employed secretaries specially charged with the supervision, and direction, of educational work. Methods for boys' classes and courses were carefully studied, and a large field of service, especially for boys leaving school early to enter employment, was revealed.

As the work with classes became more systematic and thorough, it was recognized that tuition fees might fairly be charged, and a beginning was made in such a financial policy. To systematize and standardize the work, international examinations were introduced, the result of which was to increase respect and support for the work on the part of the general public and of educational institutions. In fact, much commendation was expressed for the value of the service rendered by the association in promoting interest in vocational education.

In 1900, there began a period of expansion and extension. Instead of the class work being limited to the winter time, such instruction was continued throughout the spring. Day work was also introduced, and summer schools for boys were organized to supplement the work of the public schools. Special schools, such as automobile, salesmanship, advertising, insurance, real estate, textile designing, plumbing, fruit culture, and many others were established. The educational program of the association was also extended into fields outside the building.

There was a steady increase in the number of associations employing educational secretaries. To some extent, supervision from State committees was inaugurated. Higher standards of instruction were established. The years from 1900 to 1915 witnessed a remarkable

growth of the association educational work, as exhibited by the following statistical data:

	1901	1915
Number of lectures and talks.....	3,041	14,819
Educational club members.....	4,613	26,700
Number of associations with educational secretaries.....	21	84
Number of paid teachers.....	901	2,592
Total different students, day and evening.....	26,906	83,771
Number of international certificates won.....	1,632	2,240
Students in association day courses.....	560	8,031
Students outside building.....	850	22,653
Expense of advertising.....	\$12,607	\$81,772
Tuition receipts.....	\$48,000	\$814,024

In September, 1916, George B. Hodge, who had with remarkable success, fidelity, and devotion brought the educational work of the association to a high standard of efficiency, and who had been a large factor in developing it in all fields, resigned to take up the important task of developing the statistical work of the International Committee and of the associations as secretary of the bureau of records. He was succeeded in the educational secretaryship of the International Committee by William Orr.

Since 1916, the educational work of the associations has continued along lines that have become recognized as standard. There was imposed upon the association, in consequence of the war, the responsibility of meeting the needs for a most extensive educational program in connection with the prisoners of war in Europe, in the Army and Navy camps, and training stations in this country, and later in connection with the extension of the service of the National War Work Council to the American Expeditionary Force in France and among the French and Italian troops, in fact, wherever the Young Men's Christian Association was maintaining Red Triangle work for the benefit of the men with the colors.

Meantime the local associations had, in many cases, modified their courses so as to contribute toward the training of men for technical service in the Army; the achievement in this respect is one of the most notable in the annals of the movement. Much was done also through lectures, practical talks, and clubs to educate communities and the immediate membership of the association upon the great issues of the war. With the signing of the armistice in November, 1918, the need for the war work in the local associations ceased, but there continued to be an even more urgent call for such service in the camps. In January, 1919, for example, after a considerable period of preparation, there was inaugurated in France one of the largest educational movements on record in the shape of schools and classes for the benefit of the men in the American Expeditionary Forces. The direction of this undertaking was in charge of an Army Educational Commission, with headquarters in Paris.

In the home field, the associations have been adapting themselves to a return to peace conditions, and are now considering a standardization of certain classes and schools on a national basis.

AIMS AND OBJECTIVES.

Association educational work originated, as one might say, spontaneously, in response to the needs of boys and men with whom the secretaries of the associations came into sympathetic relations, through observation, through personal interviews, and through an intimate knowledge of the embarrassments and difficulties which beset the path of those seeking a satisfactory and worthy life career. The workers in the association movement, both laymen and employed officers, came to realize the great need of educational opportunities in the field of both general and vocational training. Gradually the aims of the movement in this enterprise became clearly defined, and in all development of the work these aims have been kept clearly in mind as guiding principles determining both content and methods.

The particular function of the association, through its educational service, has been to furnish and to make easily accessible to men and boys, mainly those in industry, such courses of instruction as would enable them to become better citizens and workmen. It is significant that even at the very outset of the educational work, this purpose appears in the courses in ancient languages intended to aid men preparing for the ministry. While such subjects as these no longer appear in the programs of instruction, the vocational aim has continued to dominate. As expressed in terms of the particular purpose of the association movement, such training is regarded as essential in developing capacity for the largest service to one's fellows and for the best realization of one's life in accordance with the highest Christian ideals.

In undertaking to realize these purposes, the association has consistently sought to supplement rather than to duplicate the opportunities offered by the public schools and other educational agencies. In fact, an extreme solicitude in this respect is to be noted; and, from time to time, tests have been made with resultant revisions of the program, whereby certain forms of work are eliminated and others introduced in accordance with the educational conditions and needs in each community.

Naturally, much of the service of the educational departments has been of a pioneer kind, and from competent authority definite recognition has been made of its achievements, particularly in the field of vocational education. One of these is that of E. E. Brown, now chancellor of New York University, and formerly United States Commissioner of Education, who states:

The Young Men's Christian Association is one of the best pioneer educational agencies in America, blazing a way for public schools and others to follow.

With the development of vocational courses in public schools and higher institutions of learning, especially since the organization of the Federal Board for Vocational Education, it has been found necessary for associations to make progressive adjustment to the opportunity for vocational work offered by other agencies. The increase of the age of leaving school, and the establishment of continuation schools have made unnecessary at certain points much of the work formerly done through the associations for boys up to the age of 16. It is significant, however, that in centers where there are abundant facilities offered in technical and business courses, association schools are maintained successfully. The education of public opinion as to the value of skilled workmen, as against unskilled, in all fields of business and industry, tends to greatly increase the demand for vocational training. There appear to be certain subjects that can be offered on a satisfactory basis to groups of men and boys through the association channel, and consequently classes in these subjects are well patronized.

The aims of the association in its educational work are by no means limited to vocational training. Much is being done in advancing knowledge in fields of general information, such as history, science, literature, art, and mathematics. There is a definite endeavor to promote reading and to stimulate the circulation of books from both association and public libraries. It may be noted in connection with reading that for the year ending May 1, 1918, 13 associations reported a circulation of over 5,000 books each among the membership. In many cases there is very effective cooperation between the public libraries and the local associations. Railroad branches have been particularly active in the stimulation and direction of the reading habit. Other means of general culture are through lectures, practical talks, and, to a limited extent, through classes.

Where an association is not in a position to develop organized educational work on its own part, alert secretaries in city and county associations are cooperating effectively in promoting the work of public schools and of higher institutions of learning.

FIELDS OF EDUCATIONAL WORK.

CITY ASSOCIATIONS.

By far the greatest part of the class work of the Young Men's Christian Association is done under the auspices of well-organized and adequately manned associations in the larger centers of population. The extent of this field can be seen from the following statistics taken from the Yearbook for 1918, which shows there were in opera-

tion in 1917, 699 city associations ministering to a population of 39,680,000. The total membership in these associations was 516,366. Of these associations, 441 were in cities from under 25,000 population up to those maintaining what is known as the semimetropolitan organization; 58 were of the semimetropolitan type, and 15 were metropolitan city associations. Out of a total of 79,263 students as reported, 5,881 were in the first group; 14,683 were in the second group; 23,377 were in the semimetropolitan; and 35,322 were in the metropolitan city associations.

In most, if not in all of these cities, the association maintains one or more buildings with an especially trained and equipped staff of employed officers and a well-organized body of laymen as directors and committee men. The net property and funds in these associations amounted to \$82,465,000 and the operating expenses \$15,553,000; and an evidence of their intimate contact with business and industry is shown in the fact that 63,681 positions were filled through the employment bureaus.

RAILROAD BRANCHES.

Through its railroad department, the Young Men's Christian Association maintains 239 organized centers, with a total membership of 94,126. While it is not possible, owing to the conditions under which railroad men work, to conduct any large amount of formal class work, the railroad associations are alert to their facilities to furnish the men coming under their influence with opportunities for reading and for general culture through the provision of books, the maintenance of reading rooms, and through lectures and talks. The book service is notable, in that 111 associations report that their members read 253,183 books; 179 report 8,819 periodicals on file; 108 report 2,707 lectures and talks. Work is also given in cooperation with higher institutions of learning through extension courses and through classes within and without the building. To some extent these courses are related to the occupations of the men, although the taking over by the railroad corporations of training along technical lines has made it unnecessary for the association to continue a number of classes formerly operating in the technical field.

The following details regarding educational work of the railroad departments are given by John F. Moore, senior secretary for railroad work:

In the work of the railroad department, much emphasis has been given to practical talks on vital subjects, such as health, thrift, and patriotism, to groups of men in association buildings and in railroad shops and roundhouses.

On the Grand Trunk and Canadian Pacific Railways specially qualified lecturers devoted weeks to special health campaigns primarily among the apprentice boys at railroad shops.

In the Albany, N. Y., and a number of other railroad associations, classes in telegraphy are conducted, these classes being open to women as well as men. At the larger railroad terminals, such as Philadelphia, New York, St. Louis, and Boston, educational work of varied types is in operation, including not only practical talks, but educational classes as well.

Much use is made in all railroad associations of the stereopticon and in a growing number, the moving picture is being given place.

ARMY AND NAVY.

Prior to the war, the association, through its Army and Navy department, furnished a great variety of educational opportunities to the men in service with the colors, whether as soldiers, sailors, or marines. This work, since 1917, has become merged in the vast enterprise of the War Work Council of the Young Men's Christian Association, an account of which is given later. In 1916, there were 27 Army and Navy associations with a total membership of 4,613. These associations are for the special service of men at Army posts in this country and for sailors in the United States Navy at their base ports. Opportunities are offered for reading. Periodicals are on file, and a limited amount of class work is conducted. The purpose of the work is to give the men on leave, and during their leisure, opportunities for wholesome and satisfactory intellectual work. Something is also done to promote their training for callings they are likely to enter after leaving the service.

The following details regarding educational work of the Army and Navy department are given by B. C. Pond, secretary of the Army and Navy department:

Prior to the entry of the United States into the World War, the Army and Navy department of the International Committee promoted through its various branches at Army posts and naval stations, and in port cities, association service with men of the Army, Navy, and Marine Corps.

Here, as in other association fields, the educational work had a definite place on the program.

The frequent changes in location of men of the Army and Navy, however, made it difficult to carry through as comprehensive a program as elsewhere. At certain Army posts, educational classes have been maintained with considerable success. The subjects studied include the elementary branches and some special topics especially related to promotion to higher grade, such as mathematics and electricity. Formal class work was carried through the season successfully.

In the Navy associations, attempts have been made in the past to maintain formal class work, and with success in some instances when the men remained at a station for some length of time. These classes were chiefly in subjects relating to promotion to higher grades.

In both the Army and Navy some attention has been given to circulating books, and reading rooms in the association have been a feature of work at both Army and Navy points, and the stereopticon has been used in this connection. Such lectures include historical, travel, and industrial topics.

The educational program in the future of the Army and Navy department of the International Committee will be determined by the needs which may be discovered and by the association's ability to meet these needs in cooperation with existing agencies.

COUNTY WORK.

There are now in operation 279 county associations with a membership of 9,463. In few instances does a county association possess a building, and its work is done mainly through the county work secretary and committee, and consists in promoting forms of activities for the betterment of county life. In the educational work in this field, the most effective service is through cooperation with other agencies, such as State and National Departments of Agriculture, the grange, the church, and the public schools.

Reports show that in 1917 the county educational work consisted mainly of lectures and talks of which 1,074 were given; total number of students in evening schools, 293; in class work, both day and evening, 1,300.

The following details regarding county work are given by Hugh D. Maydole, of that department.

Period July 1, 1916-July 1, 1918.

Number of lectures for which admissions were charged.....	600
Number of communities in which these were given.....	205
Attendance.....	59,022
Number of practical talks.....	3,698
Communities in which practical talks were given.....	466
Attendance.....	72,836
Number of discussion groups and educational clubs.....	4,631
Communities maintaining discussion groups and educational clubs.....	167
Number of educational trips personally conducted by secretaries and leaders.....	163
Number participating.....	1,838
Number of communities in which agricultural contests were conducted.....	342
Number participating.....	3,653
Boys and men in educational classes.....	490

In addition to activities conducted along educational lines through the county work department, as recorded in the Yearbooks, other features are carried on by the county organizations through the local associations and in cooperation with the institutions of the church and school, and with many organizations such as Granges, boards of agriculture, lodges, parent-teacher associations, etc. They include debates, mock trials, thrift campaigns, instruction in first aid, swimming and life-saving, nature study, talks on agriculture, horticulture, stock raising, and many features related to farming and rural life which are often illustrated by stereopticon views.

The furnishing of speakers for schools, churches, and various conferences and meetings, frequently falls into the educational realm because of the unusual message brought to the rural districts.

INDUSTRIAL DEPARTMENT.

The industrial department operates partly through city associations and partly through organizations in the industries themselves. Consequently, it is not possible to give detailed and accurate statistics upon this work. It may be stated, however, as indicating the

extent of the constituency, that 405 city associations report 102,884 members in industrial occupations, and that 53 city associations have 63 secretaries giving full time to organized industrial extension work. Many associations, without full-time secretaries, are doing extensive work for industrial workers; 4,500 volunteers serve regularly as teachers and leaders of industrial workers; 9 secretaries are working with immigrants in ports of landing and in depots; and in addition, there are 132 buildings with 187 secretaries operating in single industries and groups of industries, as follows:

Industry.	Buildings.	Secretaries.
Coal.....	35	46
Lumber.....	19	22
Cotton.....	19	20
Metal mining.....	16	18
Iron and steel.....	12	25
Shipbuilding and munition plants.....	31	50

The industrial work during the war period has grown greatly in view of the concentration at certain points of great numbers of workmen. Much has been done to promote an intelligent relationship between employers and employed in this field by means of reading courses and discussion groups and lectures. The service of the industrial department in the education of immigrants in English and in civics has also been notable.

The following details regarding educational work in the industrial field are given by Fred H. Ringe, of the industrial department:

In connection with the industrial work of the association, a large, comprehensive, and varied educational program is being promoted. Over 200,000 industrial workers are members of the association, and these are being reached by the usual educational classes, clubs, lectures, discussion groups, etc., held for the most part in the association buildings. In addition, 5,000,000 industrial workers are being served through various lines of association extension work, and fully half of these are being touched through some form of educational work.

Possibly the most significant single development has been the large program of Americanization, especially along lines of English and citizenship to foreigners. Over 60,000 of these foreign industrial workers are being served annually in small groups, and approximately one million are being reached through educational lectures of various kinds.

Other interesting features that have been promoted with marked success have been the supplying of technical and other special periodicals of interest to working-men and boys; foreign newspapers and books in the reading rooms; educational clubs and classes of all kinds; practical talks freely illustrated with motion pictures and stereopticon views; exhibits on health, hygiene, alcoholism, temperance, right living, etc.; special exhibits of industrial products manufactured by home industries, vocational guidance classes and institutes, etc.; educational facilities in the workers' neighborhoods; special educational bulletins and printed matter used to advantage in the shops; entertainments and pageants; and proper celebration of foreign and American holidays with an educational motive.

Some of the most interesting activities are in operation not only with foreigners but with Mexicans, colored workers, apprentices, and foremen. Most interesting results have been obtained through special talks and discussion groups with foremen from each plant in a community. Particular mention might be made of the work which is being done through the Industrial Service Movement of the Association in securing college men, particularly those who expect to go into business and industrial life, in various forms of volunteer educational service with small groups of workingmen and boys. At least 3,000 of these men are annually enlisted from many colleges to teach English to foreigners, to lead technical classes of American workingmen to handle clubs of apprentices, etc.

The Industrial Department fully realizes that industrial workers can not be properly educated unless their managers and employers are sympathetic with the idea. In its educational work, therefore, the association is reaching the coming leaders of industry by developing the enthusiasm of these potential leaders while still in college. While teaching an English class of foreigners, an engineering student learns the value of this work, acquires a sympathetic understanding of the foreigner and his needs which makes him a valuable educational ally in the years to come. In addition to opportunities for practical service, these engineering students are given a chance to hear special lectures, and to attend weekly discussion groups along lines of the human side of their business. They are taken on special observation trips, and urged to read selected books and literature dealing with these themes. One great achievement has been the outlining of a special course in the human side of engineering which has been adopted in whole or in part by a number of leading colleges.

COLORED WORK.

There are 150 associations especially for the service of colored men. A very large proportion of these are in the South. There are 77 employed officers and a total membership of 17,602. Of this total, 12,810 are in city associations, and 4,792 in student associations. All forms of educational work are in operation in the city associations. It is recognized, however, that there is a large field to be developed in meeting the needs of colored men. The recent movement of colored industrial workers into the North has accentuated the importance of this service.

BOYS' WORK.

The following details regarding educational work of the boys' departments are given by C. C. Robinson, boys' work secretary:

In the first place, it should be said that the educational work of the boys' division is in the realm of informal rather than formal education, that is, most of the work is done in clubs rather than classes and is in connection with various activities, into which we put the educational emphasis. The last Yearbook had something like 131,000 boys in physical education and about 12,000 in day and evening schools.

Boys' camps.—Approximately 25,000 boys attend summer camps each year under the auspices of our association; a large majority are in what would be termed "recreation camps," but there is much excellent educational work done, particularly in woodcraft, nature-study, and campcraft, with many talks, lectures, and discussions on ethical and religious problems. The camp shop, where the boys make everything from kites to bookcases, is coming to be a feature of all the larger camps. In many camps, one leader is engaged to instruct the boys in elementary manual training.

The training camps are growing in number and importance. Groups of high-school and employed boys are carefully selected, and brought together for a week or 10 days' period, where they study moral, religious, and social conditions among boys of their group and formulate plans for definite improvement of conditions in their respective groups at home. These conferences are conducted by State, county, and local associations. Approximately 2,000 boys are brought together in this way for periods varying from four days to two weeks. The educational value of this program is great, partly because the boys are thinking of others rather than of themselves, and are unusually open-minded to suggestion and instruction of leaders.

Gymnasium leaders' club.—Six thousand boys are enrolled in these clubs, where they are given formal instruction weekly by trained physical directors in apparatus work, first aid, and in the pedagogy of leading and teaching other boys in athletic and gymnastic work.

Younger boys.—The libraries maintained by most boys' divisions are regularly patronized by the boys 12 to 14 years of age, and this is true of the workshops, which are increasing rapidly. Educational outings to newspaper offices, power houses, museums, factories, etc., are most popular with this group.

High school boys.—In connection with the 15,000 boys enrolled in high school clubs under association leadership there is both ethical and moral instruction, in formal talks and in free discussion. The informality of these exercises draws out the boy's own opinion and adds greatly to the value of this feature from an educational standpoint. Many associations make definite efforts in campaigns and other short-term efforts to induce boys to continue their education in school through what has been known as the "Stick to School Movement."

Employed boys.—Here there is opportunity for a wide range of educational work, as often the association is the only educational agency that touches the boy's life. Corrective physical training is given to about 35,000 employed boys, and considerable effort to give instruction to these and as many more reached in extension work is winning success in such lines as teaching thrift, physical fitness, sex education, health laws, value of education, vocational guidance, etc. The use of charts, pictures, and various types of visualized instruction make their appeal both in association buildings and in stores and factories.

In vocational guidance "Find Yourself" campaigns are growing in extent and improving in value. The city of Rochester, under the leadership of the association, has recently put through such a campaign, in which all the educational agencies of the city cooperated. About 1,200 employed boys have been studied through self-analysis and reanalysis, and have had interviews with leading citizens, prominent and skilled in the various lines of trade, business, and profession. Committees of leading men are following up the work carefully, and a special secretary has been employed to give his full time to individual cases and in aiding the work of the several committees. Employed boys' brotherhoods in 100 leading cities and towns form the same basis for moral and religious instruction that the high-school clubs do in their field.

Education in citizenship.—Both high-school and employed boys, under association leadership, have shown remarkable interest in the discussion of social and economic questions; in fact, no type of Bible study or discussion club has been quite so popular. One of the first books issued in the country for the discussion of these questions by older boys was our publication "Christian Teaching on Social and Economic Questions."

Rural boys.—County associations have similarly served the boys in village and rural communities. The camps, conferences, athletic events, and weekly meetings of these groups of farm and village boys are of supreme value in teaching the younger generation social ideals and giving them practical experience in cooperation, a social factor so much lacking in the smaller centers of population.

Bible study.—The more than 70,000 boys who, through the busy season, meet each week in Bible study classes, is no small educational element. This study is all voluntary, largely led by young men in little groups where the boy has a chance to express himself. This plan is ideal from certain educational standpoints.

Specialization.—Another important educational factor in association boys' work is the opportunity to lead boys out along the lines of their special interests and capacities. This might be called prevocational education, for it is not done with the immediate vocational guidance objective, but more from the standpoint of giving the boys self-expression. Especially for boys in public schools, where instruction is formal and runs in restricted grooves, this instruction is valuable also from the standpoint of mental hygiene. To many boys regular school work is a deadening process and has a tendency to thrust aside or relegate to the subconscious many of the boys' dearest hopes and interests. By giving boys an outlet and a means of expression for these otherwise submerged sections of their nature the association performs an effective educational service.

FOREIGN FIELD.

Through its foreign department the Young Men's Christian Association maintains 292 associations of which number 67 are city and 225 student. These associations are distributed throughout the Far East—that is, China, Japan, the Philippines, and India; the Near East—Egypt and Turkey; Mexico, Cuba, Porto Rico, and the South American States. Four hundred and sixty-two officers are employed, of whom 173 are American and 289 native. The total membership of the foreign associations is 58,231. Through the educational work much is being done to give fuller information to members and to communities, so as to promote a better understanding of other countries and also to furnish an opportunity for better equipment in vocational callings. All told, there were in the educational classes of the city associations in foreign countries 18,292 members.

The significance of the association's educational program abroad may be illustrated by what is going on in China. The association early discovered that the most attractive of all the privileges it had to offer—far more attractive than its physical program—was that of educational facilities. Its willingness to adapt its educational policy to the demands of the hour made it popular among the more far-seeing men of that rapidly awakening nation. It was his Putung School, for example, which gave Gailey, of Princeton fame, and the association of which he was the general secretary, an entrée among the officials and gentry in the original city of Tientsin, who had hitherto resisted the approaches of the Christian missionary, and had successfully prevented the opening of any mission premises within the boundaries of the city walls. The prestige thus gained gave the association an opportunity to enter the Capital with a similar work. The association has extended its educational activities to a score of the major cities of China, in which it has a teaching staff of 423 and a total enrollment of over 8,000 students, 44 per cent of

whom are taking college preparatory studies. So much are the educational classes appreciated that they have the distinction of being the only phase of association activity in China which is self supporting.

WAR WORK.

Prior to the entrance of the United States into the great World War the International Committee was conducting educational work of great importance for the prisoners of war in Europe in all the belligerent countries except Turkey and Bulgaria. Through this service opportunities were given to men who were utterly deprived of any freedom and were cut off from all former associations. Men who were living under the most depressing conditions found solace and refreshment of spirit in listening to lectures and in the pursuit of definite study. Statistics as to the number of men thus reached are not available, but it is no exaggeration to say that the secretaries employed in this service were able to be of the greatest possible help to hundreds of thousands, if not to millions, of men.

ARMY EDUCATIONAL WORK.

When the United States troops were sent to the Mexican border the association, in inaugurating its work for these men, undertook the supplying of both books and magazines, and also began, at such places as afforded an opportunity, a certain amount of class work, particularly in commercial subjects and in Spanish. This work, however, was not thoroughly organized nor put in charge of specially designated secretaries.

With the entrance of the United States into the World War carefully formulated plans were made with regard to extending the educational work of the International Committee to the camps and naval training stations on this side of the Atlantic and later to the expeditionary forces. This work grew by leaps and bounds until it constituted in its total one of the most notable achievements in education that the world has ever seen. Practically every man in service with the colors, whether on land or sea, was afforded opportunities for mental recreation, for profitable consecutive reading, and in many instances received instruction in subjects of a general and vocational character. In supplying reading matter the War Service Committee of the American Library Association cooperated most effectively with the association, with the result that literally millions of books were provided for the men with the colors.

(a) IN HOME CAMPS AND STATIONS.

The value and success of this service were in no small measure due to careful and comprehensive planning in anticipation of the needs and opportunities in this field of association service. As

early as February, 1917, at the suggestion of John R. Mott, memoranda were prepared setting forth an extensive program of educational work for the armed forces of the United States, both on land and sea, in the event of war.

At the first meeting of the National War Work Council of the Y. M. C. A., held in New York on April 28, 1917, a statement was presented by the educational department of the International Committee giving in detail the proposed educational activities of a program of service to men with the colors, including forms of work, equipment, and organization. These recommendations were adopted, and later an educational bureau of the council was appointed by William Sloane, chairman of the council, consisting of Frederic B. Pratt, Dr. D. H. McAlpin, W. E. S. Griswold, F. L. Slade, Samuel Thorne, jr., and E. L. Shuey. William Orr, senior educational secretary, was chosen director of the bureau.

This bureau was charged with the responsibility of putting the plans into effect.

A limited program, consisting mainly of lectures, and reading matter (books, magazines, and newspapers), was soon in operation in the Reserve Officers' Training Camps. Some class work in conversational French was also given at certain points.

With the gathering of volunteers, and later of drafted men, in the cantonments and naval training stations, the full program of association educational war work was put into effect. This program included practical talks on subjects of special interest to the men; classes in elementary English, writing and arithmetic, and in more advanced and technical subjects, such as bookkeeping, stenography, typewriting, automobiles, gas engines, and French. Liberal studies in history, science, and literature were inaugurated, with lectures on causes and ideals of the war. In the provision of books and magazines there was close cooperation with the War Service Committee of the American Library Association.

As the work grew it became necessary to add to the staff of the educational bureau John L. Clarkson, of the educational department of the Philadelphia Y. M. C. A.

A great demand soon appeared for conversational French, and several manuals for the use of students and instructors were prepared and widely distributed. In like manner special texts in elementary English were published. The work soon extended to all camps and training stations, large and small, in this country, and later to the forces overseas. A manual for the guidance of directors and instructors was issued in three editions. A total of over 20,000 copies were distributed.

With the assembly of the drafted men in the camps in the fall of 1917, a great need of instruction in English for illiterates and

those unable to speak this language appeared. This need was met in a direct effective fashion. When later, in the spring of 1918, the War Department assembled men lacking in elementary knowledge in the development battalions, the conduct and direction of the work was made a responsibility of the Y. M. C. A. educational directors in the camps.

The extent of the Army educational work can be judged in some measure from statistics, gathered by the War Work Council, for the months of January, February, and March, 1918, as shown by the following table:

Department.	Books circulated.	Number of lectures.	Attendance at lectures.	Number of clubs.	Attendance at clubs.	Number of classes.	Attendance at classes.
Northeastern.....	72,422	446	128,286	143	2,780	1,906	46,125
Eastern.....	419,607	1,026	330,702	150	22,536	6,483	183,714
Southeastern.....	277,118	1,671	675,194	.....	.....	31,446	521,714
Central.....	205,843	1,181	348,557	152	4,373	11,028	295,123
Southern.....	163,124	847	208,375	.....	.....	8,329	146,102
Western.....	108,114	972	208,932	57	1,885	3,558	85,138
Total.....	1,246,308	6,143	1,898,046	502	31,574	62,760	1,277,916

On this basis the figures for a year for the six departments would be as follows:

Books circulated.....	4,985,232
Number of lectures.....	24,572
Attendance at lectures.....	7,592,184
Number of clubs.....	2,008
Attendance at clubs.....	126,296
Number of classes.....	251,000
Attendance at classes.....	5,111,864

In view of the growing importance of the educational work and the close relations established with the Commission on Training Camp Activities, Raymond B. Fosdick, the chairman of that commission, appointed on August 31, 1917, a committee on education, consisting of William Orr; Dr. P. P. Claxton, United States Commissioner of Education; John H. Finley, superintendent of instruction for the State of New York; Dr. Harry Pratt Judson, president of the University of Chicago; and P. H. Callahan, of Washington, D. C. This committee was charged with the duties of advising with, and reporting to, the Commission on Training Camp Activities regarding the educational work in the camps, and of making recommendations regarding programs and policies.

In the fall of 1917, John L. Clarkson, who had rendered most effective service in the educational bureau, was sent by the War Work Council to France to make a survey and to report upon educational work for the American Expeditionary Forces in that coun-

try. W. O. Easton, of the educational department of the Philadelphia Y. M. C. A., was secured as associate secretary in place of Mr. Clarkson.

The growth of the work for the Army in this country and the demands of the home educational work made it desirable in August, 1918, to separate these two fields of service and a reorganization was made of the educational bureau whereby the following staff was appointed: Professor Ernest H. Wilkins, of the University of Chicago, director; Prof. A. C. Trowbridge, of the University of Iowa, associate director; Prof. E. C. Armstrong, of Princeton, director of instruction in French; Prof. A. O. Lovejoy, of Johns Hopkins University, director of lectures.

In October the staff of the bureau was completed by the addition of E. D. Roberts, assistant superintendent of schools in Cincinnati, as director of instruction in English; Prof. J. W. Young, of Dartmouth, as director of instruction in mathematics; and N. W. Pomeroy, as assistant director. An advisory committee was appointed, consisting of President W. A. Jessup, of the University of Iowa, as chairman, Dr. S. P. Capen, of the Bureau of Education, Prof. Anson Phelps Stokes, of Yale, and Frank V. Thompson, superintendent of schools in Boston.

The main policies of the reorganized bureau were, first, service as a center from which good methods reported from one part of the field, or plans originating in the bureau, might be transmitted to all parts of the field; second, the maintenance of close relations with the several offices and agencies of the War Department concerned with educational matters; and third, the standardization of texts and methods in the different camps. For such standardization there was great need. Hitherto, even in English, French, and mathematics, the subjects most universally studied, there had been no attempt at standardization. Each camp had made its own choice of texts, or had worked out its own texts.

The bureau set about the preparation of standardized texts in English, French, and mathematics. The standardized French text, "Liberty French," was published by the association press early in November, and a text prepared at Fort Oglethorpe, "Camp Arithmetic," by Roehm and Buchanan, was accepted as a standard text in arithmetic. The other texts were not actually issued until 1919.

During the last four months of 1918 the educational work in the camps included, as previously, four main types of service—class work, lectures and talks, library management, and bulletin and map service.

Prior to the signing of the armistice, the class work consisted chiefly of instruction in English for foreigners and illiterates, both within and without the Development Battalions (since General

Order No. 45, made optional, not mandatory, the sending to the Development Battalions of men lacking in knowledge of English, a very large number, probably over 50 per cent, of the able-bodied men who needed English instruction, were not sent to those battalions), instruction in French and mathematics.

Under the direction of this bureau, the work continued until the armistice, and is now in operation in the period of demobilization with a special emphasis upon the lecture service.

(b) WITH THE AMERICAN EXPEDITIONARY FORCES.

France.—In September, 1917, in response to an urgent cable from E. C. Carter, general secretary in charge of the Y. M. C. A. work with the American Expeditionary Forces in France, John L. Clarkson, who had served acceptably as assistant in the work of the educational bureau, went to France to survey and organize the work with the Army in France. After making some studies and a stimulating and helpful report, Mr. Clarkson volunteered for active service. For some months the work of organizing the educational services for the expeditionary forces was in abeyance, although Prof. John Erskine, of Columbia University, with several associates, engaged in lecture and class work.

The following extract from a report of E. C. Carter, general secretary in charge of the work with the American Expeditionary Forces, under date of April 16, 1919, summarizes the beginning and progress of a most notable educational enterprise:

On January 8, 1918, Prof. Anson Phelps Stokes, of Yale University, arrived in France to make an educational survey. On February 18, 1918, the chief secretary submitted Prof. Stokes' report to general headquarters, and on March 15, the chief of staff replied: "The Commander in Chief approves the project in principle and has directed that proper facilities be given for this work throughout this command."

As a result of the lines laid down in a draft of two proposed general orders, submitted by General Headquarters, on May 4, the Y. M. C. A. undertook the responsibility for educational work in the American Expeditionary Forces, and constituted the Army Educational Commission composed of Prof. John Erskine, of Columbia University; Frank E. Spaulding, superintendent of public schools in Cleveland; and Kenyon L. Butterfield, president of Massachusetts Agricultural College, Amherest, Mass. On October 31, 1918, the Commander in Chief issued the first general order of the American Expeditionary Forces on education, the first paragraph of which read as follows: "The Young Men's Christian Association, through the Y. M. C. A. Army Educational Commission, has organized, with the approval of the Commander in Chief, an educational system charged with the standardization of educational methods and the establishment of schools for instruction of officers and soldiers in all of the larger posts, camps and hospitals of the American Expeditionary Forces."

Even during hostilities the educational work carried on by the Y. M. C. A. was of large dimensions. It all had a direct bearing on military efficiency and morale. It is estimated that at least 300,000 American soldiers studied the French language in the days which preceded the armistice. Large numbers studied European geography. Through lectures, pamphlets, and posters effort was made to build up an intelligent appreciation of the achievements and ideals of our principal Allies and of the great

aims for which the Allied armies were fighting. With the coming of the armistice there was a marked falling off in the attendance at French classes and an increasing desire to study American problems and to prepare for the return to civilian life. The hundreds of thousands of textbooks which American publishers had produced for the Educational Commission at unprecedently low prices had not begun to arrive in France until after the armistice, though most of them had been prepared in the hope that they would be in France at the beginning of demobilization. In the months following the armistice the Army was able to assume an ever increasing responsibility for the educational work. By General Order No. 30, division educational centers and university courses were established and by General Order No. 27, issued in March, it became possible to excuse men from military duties during the afternoon, to permit of their attendance at post schools. A survey showed that 50,000 men of the American Expeditionary Force were competent to teach. From this number men were detailed as instructors. Enrollment in the post schools was voluntary except for illiterate and non-English-speaking persons. The division educational centers were organized to offer advanced courses in trades and vocational training as well as advanced academic courses.

Through arrangements with French and British authorities the Army made it possible by March 15, 1919, for approximately 8,000 American officers and men to attend classes at French institutions and 2,000 at British universities. As entrance requirements of European universities are very high, it was deemed best to send only men who were graduates of or who had been upper classmen in American universities.

For men desiring university work corresponding to freshman and sophomore work in American colleges, the American Expeditionary Force University was established by the Army at Beaune, Côte d'Or. This university took over an American base hospital camp and converted the buildings into classrooms, laboratories, study hall offices and laboratories. Col. Ira L. Reeves was appointed military superintendent, or commandant, and Prof. Erskine, of the Y. M. C. A. Army Educational Commission, president.

On March 14, 1919, the chief secretary inquired of the commander in chief whether in view of the fact that as a result of the preliminary work of the Y. M. C. A. the Army itself had established an educational system as an integral part of the American Expeditionary Force there would not be advantage in having General Headquarters assume complete responsibility for the Army Educational Commission and its staff. To this inquiry the commander in chief replied as follows:

"With reference to your letter dated March 14, 1919, with inquiry as to whether it is deemed advisable for the Army to relieve the Y. M. C. A. of all further control and responsibility for the educational work in the American Expeditionary Force, you are informed that it is considered, in view of the extensive educational system now being developed, that the complete control should now vest in these headquarters.

"Recommendation to that effect has been made to the War Department and authority obtained for the Government to assume complete financial responsibility for the entire educational project, including the taking over and placing under Government control the members of the Army Educational Commission, Y. M. C. A., and all persons within its organization who are required in educational work. The transfer will also include the purchase of textbooks previously authorized and relieving you from further financial responsibility for other items of current operating expenses of the commission at the earliest practicable date.

"It is desired in conclusion to express the highest appreciation of the work of the Y. M. C. A., through its Educational Commission in organizing the educational work at a time when it was impracticable for the Army to do so and for the continued assistance up to the present time in the wide development of the educational system

in the American Expeditionary Force. The large number of well-qualified educators brought to France by the Y. M. C. A., during the past year, will be of inestimable value to the Army in its educational work and this contribution is especially appreciated."

British Isles.—The following statement regarding educational work conducted in the American Expeditionary Forces in the British Isles is given by J. Gustav White:

At the time of the signing of the armistice there were 125 centers in the British Isles where American soldiers and sailors were quartered. Some of these centers contained comparatively few troops, who were there for training purposes, attached to an English unit. Others, like the naval bases in Scotland and Ireland, were doing active patrol duty or laying mines in the North Sea. Still other camps, and the largest ones, were so-called "rest" camps, where troops from America paused for a short while before resuming their journey to France. Our work, therefore, had to be very elastic and adapted to the requirements of the various centers.

Our first effort along educational lines began in August, 1917, when books were collected from American residents in England and were purchased outright by American Young Men's Christian Association funds, to be sent to the soldiers. Queen Mary had participated in one of these early efforts, but at all times during our work in Great Britain we refrained from soliciting any aid from Britishers, as we felt they had sufficient obligations to their own British Young Men's Christian Association. Educational lectures were the next line of service undertaken, and while the English speakers were very cordial in their cooperation, yet we found that the American soldiers and sailors were particularly anxious to hear American speakers. Hence we often delayed Young Men's Christian Association secretaries and others en route to France to render a few weeks' service in the British Isles. As soon as a sufficient number of teachers, superintendents, and other educational men were available to promote class instruction, we undertook this as a third line of service. The first conference of educational secretaries, held in July, 1918, brought together 34 men who were devoting their entire time to various forms of educational activities. Plans were perfected for beginning this work the first part of October, although some classes commenced considerably earlier. Registered enrollments were arriving at the central office at the rate of a thousand a month when the armistice was signed, and all educational plans had to be entirely readjusted. From that time on the main objective was to place in English universities such officers and men as could secure release from their military duties and have the necessary qualifications for university study. General popular education was abandoned because all troops were removed from England except the men on special leave and those connected with Headquarters. As the men on leave were in England only for a very brief time, educational work was, of course, out of the question for them, except as an occasional educational lecture might be enjoyed at "Eagle Hut" or elsewhere.

The following items taken from educational reports, issued just before and after the armistice, will give a fairly accurate idea of conditions:

1. It would be quite easy to found a Garfield University here with an American soldier student sitting down on a bench with a Young Men's Christian Association instructor, provided you have the instructor and the bench and provided the commanding officer doesn't call the soldier away. In some camps the Young Men's Christian Association hardly had a "log" for the men who wanted to study. Coal was scarce. French pronunciations cleaved to the roof of the soldier's mouth in a cold Young Men's Christian Association marquée. In most camps the Young Men's Chris-

tian Association camp secretary felt too overworked with the obvious cup-passing work to organize and supervise serious study, and in October, 1918, the association had just half the number of educational secretaries sanctioned by the Cabinet vote on August 1, 1918. The promised general orders had not been issued, so the needed cooperation of local commanding officers had to be enlisted individually. The Young Men's Christian Association looked forward to the day when the student, the teacher, and the log could be brought together and kept there for a considerable time. Just then the armistice was signed.

2. The Library service during its first year distributed 478,103 books, magazines, pamphlets, maps, etc., to troops in the United Kingdom and dispatched more than twice that number to France. The "stake" set by the educational conference was to have 25 per cent of each camp's constituency reading worth-while books each week. (The complete figures of library material dispatched, together with report for September, are given in Table 12.) Pamphlets issued by the department included "A Welcome to American Soldiers and Sailors," by Ian Hay; "To Fighting Americans," by Rudyard Kipling; and "The Huns' Ally in Our Camps," by Clement G. Clarke. "American Home News," issued daily, provided a real attraction on 500 camp bulletin boards, while every coupé of American troops leaving Liverpool was given a double copy of this little paper.

3. Educational lectures were utilized in almost as many camps as library service. One hundred and thirty-nine such lectures were supplied by the lecture bureau during the four weeks preceding the armistice. This included 42 given in connection with "concerts" in cooperation with the social department. This is a summary of educational lectures given during the last six months—May, 65; June, 88; July, 44; August, 78; September, 96; October, 138; total, 509 lectures. Based upon the average attendance during October this should mean that 129,795 soldiers and sailors attended our educational lectures during the last half year. The goal was at least one lecture per week in each camp of 300 men with 50 per cent of the men attending. The growing strength of the lecture staff caused the educational secretaries to plan not only the single lecture, but lecture series, thus enhancing the educational product.

4. Educational tours conducted by the Young Men's Christian Association secretaries to places of historic interest were very popular in north Scotland, Liverpool, Oxford, London, and the Winchester region. History was thus taught on the ground where it was made.

5. Class instruction ran the gamut from reading and writing for illiterates to preparation for Annapolis entrance examinations for sailors. The latter was undertaken at the request of the naval authorities. Some of the special courses were: Motor engineering for transport men, "buzzer" and electricity classes for signalmen, aeronautics for 100 construction men who were anxious to transfer to aviation units. Nineteen different subjects were offered in the various centers. During the first week in October 149 enrollments were registered at our headquarters from areas 2, 6, and 4. Before an enrollment could be counted a student must have attended at least three class sessions. Notice of his enrollment was sent home to his next of kin if he so requested. We felt that we had merely begun with the class instruction program during the summer while we were building our organization. The "stake" set was 20,000 students in classes and correspondence instruction before April 30, 1919. We expected each Young Men's Christian Association man to utilize the services of five part-time instructors secured from the Army or Navy or civilian neighborhood. (See Tables 13 and 14.)

6. The educational staff included the following secretaries: At headquarters, 7; in field, 43. The training of these men in absolutely new educational methods was a bit slow. Two general conferences in London, visits to field, correspondence, and bulletins were used as means.

(C) EDUCATIONAL WORK FOR PRISONERS OF WAR

An illustration of the kind of work done for prisoners of war is given in the following account by J. Gustav White of the educational activities conducted among prisoners in Switzerland.

If one multiplies this enterprise by the hundreds of points in which similar work was done in the belligerent countries, some conception can be had of the scope and extent of this service.

EXTRACT FROM REPORT OF J. GUSTAV WHITE ON EDUCATIONAL WORK AMONG PRISONERS IN SWITZERLAND.

The work done by the Swiss Young Men's Christian Association for the interned prisoners was divided into two distinct groups, that for the Germans conducted from Zurich and that for the French and Belgians conducted from Geneva. The Commission Romande des Internes was created as the agent of the Young Men's Christian Association to care for French and Belgians interned, and it was with this organization that I worked to further educational advantages. I was privileged to visit some 22 stations to investigate educational needs and conditions. I found that usually two hours per day, either in the morning or afternoon, for five or six days per week, was the schedule. Only in three cases did I find classes conducted in the evening for the men after they had returned from work. Attendance was usually obligatory, especially for the illiterates. Students were forced to attend by military means rather than pedagogical. Practically no reward or recompense was held out to attract the students or to encourage them to study. Leysin was an exception. Here the lieutenant in charge had planned trips to model farms and industrial plants as rewards for his students. Among the British Army men promotion certificates were also incentives for the primary studies.

commendable educational features were found in nearly every station. For instance, at Zweigimmen a circular was sent out by the Swiss commandant of the region asking all who wished to study to register. A hundred and twenty signed. The teachers were assembled and the work was divided. Four stations were designated as centers for the illiterates. An examination of 2,500 men showed 190 to be illiterate. Fifty per cent of these illiterates found work within 15 days in order to avoid going to school. At Oberhofen the interned prisoner who was a teacher was recompensed by the special privilege of being allowed to stay out until 10 p. m. All other internes must, of course, report to their hotel at supper time and remain in for the evening. At Engelberg I found wireless telegraphy taught for the mutilated. At Diablerets a series of practical talks upon various occupations were given by interned men to their comrades. At Sierre I found 16 Moroccans and Algerians, black men, as very willing students. At Clarence a number of practical vocational courses were offered into which new students might enter at any time and progress at their own speed according to ability.

The privilege extended to all interned men to enter Swiss universities drained out some of the best teachers from the various stations and made continuity of educational work very difficult. The regulations which obliged the men to remain in their own hotels after supper also prevented general evening classes. Textbooks and materials were not always plentiful. The greatest need, however, seemed to be for a uniform plan and for aggressive promotion of educational activities from some center. Most of the internes apparently had a mistaken idea concerning the conditions which would exist after the war. They felt that their country owed them a living and did not stop to figure out who would pay for it. Our problem was to give them a more accurate conception of the future and arouse their ambition so as to prepare at once for a changed economic condition. The difficulties which we had to

overcome was the uncertain stay of the internes, the fact that when they arrived they were too weak to study, and when they were stronger they were put to work or sent back to their country. We also had to contend with the general feeling against schools and classes for teaching illiterates. This impression was doubtless deepened by the employment of pedagogical methods adapted for children in instruction of men. To overcome these difficulties and solve the problem, I submitted the following plan to the Commission Romande des Internes, which was adopted and largely carried out before I left Switzerland:

"1. Call a two-day meeting of leading Swiss, French, Belgian, and British (?) representatives who are or should be interested in educational classes among internes. Discuss educational needs, problems, and plans, and be guided by conclusions formulated by leading internes at close of meeting.

"2. Form an advisory and publicity committee from among internes to help work out the plans this summer, especially the advertising campaign.

"3. Secure necessary cooperation of Swiss, French, and other authorities to carry out foregoing plans.

"4. Train five or more supervising teachers who can be relied upon to stay with the work through next winter. This training should include some pedagogics, and also close study of the methods of summer schools, night schools, correspondence schools, apprentice, industrial, and occupational schools, and especially of Young Men's Christian Association educational methods. These educational supervisors should have the qualities of a Young Men's Christian Association secretary, especially resourcefulness, adaptability, aggressiveness, and a Christ-like spirit of service. Have each supervisor give personal attention to one large station, but visit often in his assigned region.

"5. Train internes as local teachers.

"6. With the guidance of advisory committee this summer have supervisors secure text material and prepare sample examinations, instructions to instructors, etc.

"7. Let these educational supervisors help arrange for lectures and other activities of the Commission Romande des Internes."

Another worker among prisoners of war, Julius F. Hecker, was for a year in charge of a district in Austria in which there were more than 150,000 prisoners. During the year more than 200,000 men passed through these camps. Classes ranging from 50 to 1,000 students each were organized. Some of these students completed courses and received certificates. The most important service rendered, however, was that of popular lectures and instruction for illiterates. Hundreds, possibly thousands, learned to read in these prison-camp schools.

On the basis of this experience, Dr. Hecker prepared a manual entitled "Organization and Program of Y. M. C. A. Educational Activities Among Russians." This manual outlines the essential features in any plan of educational work conducted in camps, and constitutes a record of the procedure followed with the prisoners of war.

The organization centered in an educational committee selected from the men in camp by the Y. M. C. A. secretary or other competent person. This committee consisted of a general educational director

and a number of sectional or associate directors, one for every 500 to 1,000 men in camp; a general librarian, a general registrar and secretary of educational supplies, such as texts, charts, and stationery. This registrar also kept the record of students registered for educational work and distributed supplies. In large camps sectional educational committees, made up as the general educational committee, were also organized.

The teaching staff included teachers, leaders of study groups, reading circles, and lecturers. All these men, together with the administrators, were volunteers. From time to time little tokens of appreciation were given. Strict discipline and punctuality were required from teachers and administrators. A teachers' training class was organized by the educational director for the more intelligent among the men who were not experienced in teaching.

In the program of educational activities the first efforts were to arouse interest on the part of the men, most of whom had suffered physical privations, and, through the long period of separation from home, had lost interest in intellectual and moral values. Interest was aroused by advertising, educational rallies, and by personal visitation of the men by members of the educational committee. A number of educational posters were prepared as part of this campaign.

Educational lectures made an especial appeal, particularly when illustrated with slides, films, or simple blackboard designs. A number of written lectures, richly illustrated with designs and pictures, were prepared. These lectures were on both practical and theoretical subjects, and could be read or used as material where the lecturer could speak without a manuscript. One or two lectures per week in each of the sections were sufficient. Where the number of men was too large to attend one reading the lecture was repeated until all who desired to hear it had opportunity to do so. These lectures were distributed throughout the camp and in hospitals and to working parties. Sometimes men in the camp prepared and delivered lectures. It was found that a wide range of interests should be covered in the lectures and that not too many should be given on the same branch of knowledge. Educational classes were organized for almost any branch of knowledge for which a teacher and textbooks were available. Thirty students were regarded as a maximum. The students in each class were, as far as possible, graded with reference to intelligence and knowledge. When more and less advanced students were in one class the more capable were likely to drop out. Effort was made to supply each student with a text, and for this purpose the publication depart-

ment of the Y. M. C. A. prepared a number of books in Russian, a list of which is given herewith:

	Copies.
<i>Ivanoff</i> —The Mechanic's Trade.....	3,000
<i>Keyline</i> —General Bookkeeping.....	4,000
<i>Militch</i> —Russian National Poetry.....	4,000
<i>Ignatoff</i> —Legislative Institutions of Western Europe and America.....	1,500
<i>Tchlenoff</i> —Switzerland.....	300
Korolenko's Selected Works.....	5,000
Tolstoi's Selected Works.....	5,000
Tchekoff's Selected Works.....	6,000
<i>Metch</i> —Geography of Russia.....	3,490
First Russian Reader.....	18,580
Anthology, First Part.....	2,898
Anthology, Second Part.....	2,955
Grammar.....	3,000
Arithmetic, First Part.....	3,040
Arithmetic, Second Part.....	2,407
<i>Dr. N. Roubakine</i> :	
Popular Chemistry.....	3,000
Popular Physics.....	3,000
Popular Astronomy.....	3,000
Popular Ethics.....	5,000
Popular Cosmology.....	3,500
<i>Dr. Pavlotsky</i> :	
The Human Body: Popular Biology, Anatomy, Physiology, Pathology, and Hygiene—	
First edition.....	5,000
Second edition.....	10,000
<i>Fosdick</i> —The Meaning of Prayer.....	20,000
New Testament and Psalms.....	19,000
<i>Westfall</i> —Jesus of Nazareth.....	500
<i>Hecker</i> :	
Knowledge and Faith.....	5,000
The Young Men's Christian Association	3,900
<i>Birukoff</i> :	
General Agriculture.....	4,000
General Agriculture, second edition.....	5,300
<i>Saloff</i> —Rural Building Constructions.....	3,000
Russian calendars (folders).....	200,000
Russian posters (colored).....	24,000

In a report dated Geneva, April 15, 1918, Dr. Hecker presents the following review of the work done through the educational department:

The educational department, in charge of Dr. J. F. Hecker, which has been organized with the consent of Dr. A. C. Harte at his last visit of September 17, 1917, has been working along the following lines:

1. Supplementary educational activities for British interned in Switzerland: Ten lecturers were secured who visited the seven organized stations on an average of twice a month. The total number of lectures offered was 78, on 16 different subjects, and 1 concert tour. Due to difficulties at the stations, some were not delivered, giving a total of lectures actually delivered 58, with a total attendance of 6,960. Be-

sides furnishing lectures, we were sending educational and religious literature. For the French interned similar work was done through the agency of "Commission Romande des Internes," by which the educational department was sending material and equipment to the huts at Salvan and Interlaken.

2. Educational activities in the prison camps of the belligerent nations are carried on through the respective association bureaus of the various countries and in close cooperation with them. To systematize the educational activities, J. Gustav White planned an educational manual. The manuscript was completed by Mr. Arni, with the cooperation of numerous Swiss university professors and teachers. It was translated into French, Russian, and German; 5,000 of the English, French, and German editions have been since printed and most of them have already been sent out to the various countries. In response to the suggestions made in the manual, numerous requests for textbooks have reached us, which are being promptly answered.

3. The Russian issue of the Messenger is being prepared by the educational department, and original articles suitable to the Russian mentality furnished.

4. The editing of Russian books suitable for prisoners of war was felt as a particular necessity; 18 different ones were prepared and 17 were printed. Besides these, numerous volumes of school books, religious books, and Bibles were procured. The present actual stock is the following:

Books and pamphlet on popular science.....	17,500
Vocational books.....	10,300
School books (readers on the Four R's, etc.).....	24,000
Good reading.....	13,000
Religious.....	2,000
Bibles.....	100
New Testaments with Psalms.....	21,000
 Total.....	 87,900

Of these, various books (11,941) were already sent out; the rest are being prepared to be sent in traveling libraries, depending upon the decision of the senior secretaries' conference as to whether the Russian prisoners are still expected to stay in captivity. In case their speedy return is expected, these books could be shipped to Russia for use in numerous invalid and soldiers' homes. We have also procured 70,000 Russian icons, of which 30,000 were sent out.

5. The educational department has been recruiting secretaries for the soldiers' work in France; 12 candidates were interviewed and 6 of them were accepted.

6. Finally, the educational department has served as a medium between the association interests of American secretaries and citizens in the various belligerent countries in forwarding requests for necessities, information, etc.

At present the department is working at plans for follow-up work and work after the war, which it expects to present for discussion at the present conference.

(D) WITH ARMIES AND PEOPLES OF THE ALLIES.

The Canadian Expeditionary Forces.—Under the auspices of the National Council of the Y. M. C. A.'s of Canada, an extensive educational program for the benefit of Canadian soldiers in France and England was put into operation in the summer of 1917. It is significant that the success and vitality of this movement appear to have been due, in large measure, to evangelistic campaigns conducted in the camps.

Dr. H. M. Tory, president of the University of Alberta, was commissioned to survey the conditions and to provide working plans. Within a month after his arrival in England, 700 men were enrolled at Witley Camp under volunteer leaderships. By May, 1918, the total number of students at "Witley College" was 1,065. "Colleges" were also organized at Bramshott, Seaford, Shorncliffe, Basingstoke, and Epsom in England. In London over 400 students were provided with free instruction by the authorities of University College. In France there was established what was known as "Vimy Ridge College."

So comprehensive a program was soon in operation that the term "Khaki University" was adopted, and the different branches were known as "Khaki Colleges." The curriculum was based on the best Canadian university standards. Provisions were made to enable a man to matriculate for universities and colleges; while the more advanced courses were such as to make it possible for him to complete his academic course. The subjects included history and economics, applied science, languages and literature, agriculture and business. A special course on problems of reconstruction, dealing with the lessons of the war, the economic resources of the Canada of to-day and to-morrow, conservation of national resources, reorganization of industry and commerce, and the development of aviation and transportation, was also provided.

The direction of the work was the responsibility of an advisory committee consisting of: Chairman, Sir Robert A. Falconer, President University of Toronto; W. C. Murray, President Saskatchewan University; Sir William Peterson, McGill University; R. Bruce Taylor, Queen's University; A. S. McKenzie, Dalhousie University.

The following extracts are from an article by John L. Love in *Association Men* of May, 1918:

These men, with others of outstanding eminence, in the scholastic and commercial worlds, with Dr. H. M. Tory at their head, are placing the Khaki University on a broad and comprehensive basis that can not but succeed in achieving the great object of not merely relieving the Canadian soldier from the tediousness of camp life, but of equipping him as thoroughly for peace as the army training has equipped him for war.

In the colleges themselves the teaching staffs are recruited from within the Canadian army, and consist of distinguished professors. The senate is prepared to add to the list, to cover any subject whatever, for which there is sufficient demand.

The men have seized upon their studies with extraordinary avidity; so much so that the cry, "Men are going soggy," would appear to have been a timely warning rather than a literal statement of fact. Examination results have been almost astounding, and have demonstrated that physically fit bodies can house marvelously alert brains. Students in the Khaki College have covered in six weeks three months' university work. It is related of five men who completed in three months what, in the ordinary run of events, would have been an 18 months' course in wireless telegraphy, that they sat for the British Admiralty examination, and every one of them passed. It is not too much to say that this record is typical of the new Canadian army university.

such is the enthusiasm of the teaching staff and the dead-set earnestness of the students. These soldier undergraduates are absorbing knowledge as a dry sponge drinks in water, and in this connection Dr. Tory's remark that never in all his teaching experience have his brains been "sucked" so completely as when he is lecturing to a Khaki College class is most illuminating.

That the scheme looks good to the boys, other than those strictly of the student class, is seen in the following testimony. Writing to his mother in Brantford, Ontario, the writer says:

"The Y. M. C. A. has started an educational system in camp now (Witley), and by paying the small sum of 24 cents any soldier can become a student. Almost every branch is being taken up, so that one can take up anything from the dead languages, of course modern too, to bookkeeping, stenography, etc., and even agriculture. The different classes are on every night for two hours in special huts, and I understand that the grades of the students are to be recognized by the educational boards in Canada. So it is a splendid thing in every way. Will give the boys a chance to learn a lot free of charge, and will also be a nice way to spend the evenings in winter, and even those too old to begin can go and polish up their rusty joints. The teachers are, of course, soldiers, officers, and N. C. O's. There are a good many university men with degrees in the division, and the classes, even at the start, are not small. There is no doubt about it, the Y. M. C. A. has proved itself a God-sent institution for the soldiers—writing rooms with material supplied, eating counters at reasonable rates, services, songs, free concerts, libraries, everything possible to fill in the men's spare time are placed at their disposal, and they don't forget to avail themselves of all that's going."

France—Foyers du Soldat—Union Franco-Americaine.—In the Foyers du Soldat, the Y. M. C. A. units in the French Army, the teaching of English made up the greater part of the educational work. All the American secretaries participated in the instruction and with gratifying results. There was also a limited program of lectures, usually illustrated with cinemas. Many of these lectures were on the United States. They did much to bring about a better mutual understanding between the two countries and also to inform the French soldiers on modern scientific methods in agriculture and in other industries.

A library of 200 or more books was placed in each foyer. These books were selected from a list made up by a special commission appointed by the Secretary of War. There is no doubt that the French soldier took more interest in classical literature than did the American. He was also eager to study books on electricity and intensive agriculture.

William Sloane Coffin, who furnished the greater part of this material, and who speaks from a first-hand knowledge gained in war service in France with the Y. M. C. A., states that, while the program in each hut was determined by the immediate special needs and by the interests of the secretary in charge, the controlling purpose, on the whole, was, to foster and develop friendly relations between France and America by giving the French soldiers an intimate knowledge of America, and to arouse intelligent interest in the minds

of men, who had been taught in trench warfare not to think too much. While the organization was crude and many of the teachers inexperienced, the results were far greater than there was reason to expect.

The extent of this service can be expressed in terms of the number of foyers in operation. According to the Association Year Book for 1918-19, the 1,000th foyer, that at St. Mihiel, was opened in September, 1918. By December 15, 1919, 1,238 foyers had been started and at that date 848 were in actual operation. The personnel included 638 French directors, 234 directresses, 272 American directors and 47 directresses.

Geographically, foyers were found in France, in Alsace and Lorraine, in Belgium, Luxemburg, north Africa, Saloniki, and in the area of occupation in Germany. Units were also established at naval bases and on the fleet.

General oversight of the work was given by a committee of patronage composed of representatives of the French people and Government. There was also a special bureau in charge of the work of physical and moral education. William Sloane Coffin and D. A. Davis were the secretaries of the war-work council of the Y. M. C. A. in special charge of the foyers.

Warm words of appreciation of this service have been received from men high in official and army circles, as Painlevé, War Minister, the Premier Clemenceau, and from Gen. Lyautey, of Morocco, and Gen. Pétain.

Italy.—Case del Soldato.—In 1917 the Y. M. C. A., at the invitation of leading Italian authorities, civil, military, and ecclesiastic, extended its work to the Italian Army. When the armistice was signed in November, 1918, the War Work Council was maintaining 200 buildings, and was active in 318 hospitals and in 127 military barracks. Twenty motor routes for moving pictures were in operation. Units were established at all the railway stations in Rome, Bologna, Florence, Turin, Genoa, Naples, Milan, and Palermo. There were in service 223 directors. Up to the 31st of January, 1919, \$9,842,000 was expended in Italy by the War Work Council.

The need and demand for educational work led to the organization of class work for officers and privates, in English and in elementary subjects in Italian. Lecturers of Italian birth who had lived in America gave addresses on the aims of the war and on America's part therein. A plan of propaganda was also put into effect. Men of the Y. M. C. A. staff who knew Italian spoke to soldiers at the front and to those at mobilization points, and to the people in the cities, on the issues of the war.

A full account of the Y. M. C. A. work in Italy with the troops and the people, including the educational service, is given in an article

by Prof. A. Marinoni, of the University of Arkansas, under the title "L'Opera della Y. M. C. A. in Italy," which appeared in *Nuova Antologia*, Rome, June 16, 1919. This article is discussed in the *American Review of Reviews* for September, 1919.

Prof. Marinoni thus describes the educational work:

An agency such as the Y. M. C. A., which seeks the development of the entire man, included in its program the teaching of the alphabet. As a large proportion of the people of Italy do not know how to read and write, instruction in reading and writing was undertaken with zeal and skill. A special method was employed whereby groups or combinations of letters, in place of single letters, were taught. "Gn," "be," "gb," are combinations which occur frequently. "Ca" is also a good example. The teacher writes the two letters on a blackboard in large hand and then adds successively the other syllables, forming the more common words, as: "Ca-ne," "ca-ro," "ca-llo," "ca-po." A mastery of the words occurring most frequently was thus soon gained by the pupils.

Many officers and soldiers expressed a desire to study English, and classes in that language were opened at every point where there was a Y. M. C. A. station.

Not only did the Italian Government cooperate heartily in all these enterprises, but it also expressed its appreciation by letters and by decorations bestowed on Y. M. C. A. secretaries, as the Cross of the Commander of the Crown of Italy on one secretary, the Cross of Chevalier on five others, while 61 were given the War Cross. A cordial letter, among many, was that of Lieut.-Gen. Penella to Director Nollen.

Greece.—When Y. M. C. A. huts were first opened in the Greek army in August, 1918, it was soon found that many of the soldiers had very little education, and that, furthermore, a considerable number were unable to read or write. This condition was largely due to the fact that, in addition to two years of compulsory military training prior to 1912, a large proportion of the soldiers had been in constant active service in the wars in which Greece had been engaged for the past six or seven years. Again, the Macedonian Province, from which many of the Greek soldiers came, as these countries had been under Greek rule since the Balkan wars of 1912 and 1913, had no compulsory education and were also without good school systems. There was also a demand for instruction in English, as many of the men had been to America, and a large proportion looked forward to the time when they could go to that country.

To meet these conditions and needs, H. A. Henderson, the Y. M. C. A. secretary at Saloniki and Athens, organized classes in elementary subjects, as reading and writing, and maintained lectures of a simple character in history, geography, and other common-school subjects. Classes in these branches, both in Greek and in English, were conducted in the main Y. M. C. A. building in Saloniki and in a large hut operated by the Y. M. C. A. in Athens. At present this work in Saloniki is in charge of John Granberry, formerly professor of sociology

in the University of Texas. Two or three native teachers are assisting Prof. Granberry.

In Athens, Mr. Vazakis, a Greek, educated in New York, and with a doctor's degree from the University of Chicago, is at the head of the educational work.

While there has not been time to evaluate the results of this effort, the enthusiasm and eagerness of the soldiers are manifest. Two thousand per day is the attendance at the Y. M. C. A. hut in Saloniki. At present, 14 huts are in operation in the Greek army.

Egypt.—Reports, memoranda, and general orders show that educational work among the British expeditionary forces in Egypt, after the conclusion of hostilities, was under direct military control, with the Y. M. C. A. acting in close cooperation. Staff officers not only were friendly to this enterprise, but in several instances, gave personal attention and support. The classes were conducted in accordance with military procedure and discipline. The program was a comprehensive one, including physical training, commercial and technical instruction. General education and training for the discharge of the duties and responsibilities of citizenship in a democracy during the period of reconstruction were also emphasized. This quotation from an address by Maj. Hobart, of the General Staff of the Fifty-third Division, stationed at Aboukir, is significant of the viewpoint of many British officers:

And here I come to the general education of the mind. It is this, and not his technical excellence, which makes a man a good citizen and an efficient member of a democratic State. The fate of an uneducated democracy is writ largely in history—Greece and Rome; the Nineties in France; and now the Bolsheviks in Russia. It is unnecessary to stress the importance of every voter being in a position to judge fairly and intelligently the issues at stake. Upon the wisdom of his decisions depend, not only the safety and the standard of life and happiness of the British Empire, but it is hardly too much to say, in view of the growth of powers in the East, the ultimate failure or success of all that we understand by European civilization—those ideals, those arts, that social life, and that philosophy handed down to us from Greece and Rome.

It is a commonplace to say that all institutions are now in the melting pot, but remember that the molds into which that pot will run will be decided by us, by this generation, predominately by those very men who now form the British army. There is only one way I know in which a man can arrive at sound decisions, and that is by knowledge. Without knowledge he is at the mercy of gusts of prejudice and superstition, of mob emotions exploited by demagogues.

There will be inevitably great discontent during the next five or six years. Readjustment and reconstruction are matters of immense difficulty. Discontent with the conditions to which they are returning is inevitable with men who have learned a new standard of living, and of honor, new ideals, and a new sense of comradeship and solidarity. And rightly so. There are many things which need alteration; and none of us could for a moment contemplate with satisfaction any of our men going back to the conditions of existence common to poorer quarters of the great cities of England.

Alongside of this danger of discontent there is the unequalled opportunity of setting things really right—the greatest opportunity of real reconstruction in the history of

the nation. But the work must be done soundly; the new edifice built on solid foundations, not a shoddy patchwork of meretricious, superficially attractive schemes.

The only sure guarantee of this lies in the mind of the individual voter and in his ability to see and grasp broad issues through the tangle of personal profits and prejudices. The individual must have not only a general knowledge of the broad facts which history has repeated again and again, and of the thoughts of the great minds of the past on the fundamental and unchanging problems of human life, but a just appreciation of the value and importance of art and literature, of the claims and functions of commerce, industry, and agriculture, of the relationship of capital and labor, the virtues of individualism and collectivism, the claims of other classes and other peoples; and an abiding sense of pride and confidence in our own land and what it has done in the past and may achieve in the future. * * *

Gentlemen, we have before us a period of opportunity such as is not likely to occur again in the lives of any of us. We have now a breathing space during which the vast majority have ample leisure, awaiting their return to civil life and their proper and chosen careers. How long this period will last before we receive demobilization orders it is impossible to say, but, long or short, it is a unique opportunity, and I ask you to do your best to make the most of it by helping the men not only in their individual industrial requirements, but in reaching a broader outlook and a more balanced judgment on the things which lie near to our hearts, and for which indeed we have been fighting. This opportunity is unique. It will never occur again.

By the sweat and agony of war we have attained a feeling of comradeship and appreciation of the relationship of man with man, and a sense of trust in one another; in the trustworthiness of our fellows, such as is perhaps unparalleled in the world's history. This comradeship and this trust may be the greatest asset of all in the coming critical years, if we can hold to it and be true to it.

The general oversight of this enterprise was vested in an educational advisory committee with headquarters at Cairo. This committee consisted of:

R. E. Monteith-Smith of the Public Security Committee.

Gilbert Elliott, principal of Secondary Schools.

William Jessop, general secretary of the Y. M. C. A.

Lieut. Col. R. G. Howard-Vyse.

Maj. P. C. S. Hobart.

Maj. A. T. McMurrough-Kavanagh.

Maj. H. C. Cumberbatch.

In addition to this central committee there were staffs attached to each division, of which there were four in Egypt at the time, and to the base station at Kantara. Wherever necessary, special committees were organized for battalions. Abundant use was made of local educational facilities as colleges, technical schools, libraries, and museums. It is interesting to note that for agricultural instruction the resources of the agricultural college at Cairo and of that at Jaffa were utilized.

The educational work was put into operation in Egypt particularly at Alexandria and Aboukir, at Cairo and near-by points, at the base station at Kantara, in the Suez Canal zone, and among such units as

were stationed in Palestine. These educational facilities were provided for British and Indian soldiers and officers.

The lines of work in detail were instruction, as need and demand appeared, in agriculture, commercial advertising, commercial arithmetic, reading, history, composition and arithmetic, shorthand, and bookkeeping. In a number of cases, instruction was given in elementary English for men in both the British and Indian units. The following time table gives an idea of the range of work and the system by which it was conducted:

INSTRUCTIONAL CLASSES—LEFT WING, COMMAND DEPOT, SIDI. BISHR., DECEMBER, 1918—TIME TABLE.

Subject.	Day.	Time.	
AGRICULTURE. Lieut. Toogood, Pvt. Creed, five lectures.	Monday to Friday.....	10.30 to 12.....	G Company No. 2 mess hut.
COMMERCIAL ADVERTISING. Lieut. Young, six lectures.....	(Monday..... Tuesday to Friday.....)	11 to 12..... 10.30 to 12.....	G Company No. 3 mess hut.
COMMERCIAL ARITHMETIC. Gunner Murley.....	Monday to Friday.....	10.30 to 12.....	G Company No. 1 mess hut.
READING. Mr. Jefferson.....	(Monday..... Wednesday..... Thursday.....)	11.15 to 12..... 10.30 to 11.15..... 11.15 to 12.....	H Company (6 and 7 Platoon) mess hut.
HISTORY. Second Lieut. Hennings, six lectures.	Monday, Wednesday, Friday.	11.15 to 12.....	F Company No. 1 mess hut.
COMPOSITION AND ARITHMETIC. Bmbdr. Shingleton.....	(Monday..... Tuesday..... Wednesday..... Thursday..... Friday.....)	10.30 to 12..... 10.30 to 12..... 11 to 12..... 10.30 to 12..... 10.30 to 12.....	F Company mess hut.
SHORTHAND AND BOOKKEEPING. Tpr. Greig..... Bdr. McNamara.....	Monday to Friday.....	10.30 to 12.....	E Company mess hut.

N. B.—Those who are taking arithmetic only at G Company 1 mess hut.

NOTICE.

All O. R's who are desirous of attending the above-mentioned classes will hand their names in as early as possible after joining the wing, to the officer in charge classes at the class hut (E Company's dining hut nearest No. 2 officers' mess) at 11.45 hours.

Owen Owens,
Major, Commanding, Left Wing.

By the middle of December, 1918, the work was well under headway, as may be seen from this summary of current classes of the Fifty-third Division stationed at Alexandria and Aboukir:

FIFTY-THIRD DIVISION—CURRENT CLASSES (CENTRAL SCHOOLS).

	Officers.	O. R's.		Officers.	O. R's.
Hindustani.....	8		Farming.....	32	62
Advanced telephone.....		15	Historical lectures.....	17	20
Advanced telephone.....		24	Bookkeeping and accountancy.....	17	
English, elementary.....		40	English composition.....	23	
advanced.....		30	Shorthand—Speed.....		25
History.....		15	French.....		60
Geography.....		11	Arithmetic.....		50
Mathematics, elementary.....		42	Advanced mathematics.....		24
Bookkeeping, advanced.....		20		147	1,585
Drawing.....		34			24
Equitation.....	25		Tradeamen (A. O. D.).....		150
Reinforced concrete structures.....	12	14	Motor mechanics (motor transport company).....		49
Carpentry.....	2	28			
Cotton trade and markets.....	8	60			
Agriculture.....	3	35			

¹ British.² Indian.

Instructors were obtained for the most part from the officers and men in service. Supplies and equipment constituted a real difficulty for a time and much ingenuity was shown in utilizing materials in the technical units of the Army, in addition to the drafts made upon local educational institutions. A number of texts were ordered from London to meet the needs. This report from William Jessop, the representative of the Y. M. C. A. in war work in Egypt, gives a summary of this undertaking, together with certain interesting details regarding special features:

During the autumn of 1918 an appeal was made to the universities committee of the Young Men's Christian Association to send to Egypt a director and staff to undertake educational work with the Egyptian Expeditionary Force. During negotiations hostilities came to an end, and with the object of hastening the establishment of an educational organization Gen. Allenby requested the chairman of the Y. M. C. A. in Egypt to form an educational advisory committee, consisting in part of civilian and in part of military members. In spite of the late start and the difficulties arising out of the demobilizing of instructors and students, good work was done. Some teachers were sent out from England and other professionals were found among the troops. Many subjects were taught, such as languages, ancient and modern; mathematics, history, geography, shorthand, and bookkeeping, as well as carpentry, housing, town planning, and various others. Educational lectures were also delivered nightly to large audiences, sometimes of 1,500 to 2,000 men.

When the Egyptian Nationalist disturbances broke out in the early part of 1919, educational activities were for the most part suspended except at the main base camp, Kantara. A very considerable and greatly appreciated work was done among the Indian troops as well. A unique branch of the educational scheme was the school of physical education formed for the Fifty-fourth Division by Dr. G. Deaver, the Y. M. C. A. physical director. This was a great success and well attended by men anxious to take up physical training as their future occupation. Thirty men graduated and received diplomas. Some by this time have no doubt gone into Y. M. C. A. physical work in England.

The splendid work begun by Dr. Deaver in the autumn of 1917 still goes on, although under different conditions. It was first organized among convalescents to make these men physically fit to go back to their units. The physical training scheme meant the return of men to military duty in from a month to six weeks shorter time than before it was inaugurated, and that in a hot climate under trying conditions. Now that the war is over, of course, this phase of our physical work is largely finished.

After the school of physical instruction, mentioned in the educational scheme, closed, a skating rink was taken over and the course continued there in the mornings, while at night a big program for everyone was arranged which proved a great success. Two of these trained men have joined our staff and are doing work at Beirut and Damascus.

Just before the Egyptian unrest broke out, Dr. Deaver was asked to organize the Boy Scouts in the Moslem schools of Cairo. This was an undreamed of opportunity to begin work for the Egyptians, who badly need physical training. We are hoping to receive this offer again. Nothing, of course, could be done during the uprising. Dr. Deaver is now compiling a Boy Scouts of Egypt handbook. Special parts, such as on birds, minerals, etc., are being written for it by experts, and the whole will be translated into Arabic.

Russia.—In its educational work in Russia during the war the Young Men's Christian Association sought to serve the Russian people in three ways: The promotion of general culture by teaching the English, French, and Russian languages to military units in different parts of the country; in giving recreation by a service of movie films to these units; and by presenting the sympathy and interest of the American people to the Russian civilian population in their time of need.

To achieve these aims an educational department was organized as an integral part of the association headquarters staff in Moscow in November, 1917. In spite of political conditions this department undertook and conducted successfully an extensive work until nearly a year later, when it was reorganized under the title of "Lecture Work in the Allied Units and for the Russian People," with R. J. Reitzel in charge.

This program included two enterprises: A recreational and educational film service with lectures illustrated with lantern slides for the military units and civilian population, and a demonstrated lecture campaign by Prof. C. H. Robertson, of China, in which every important center in Siberia was visited and lectures given to both soldiers and civilians.

During the summer of 1918, a notable educational enterprise was that known as the Volga Expedition, under the direction of C. C. Hatfield. In this expedition a comprehensive lecture and exhibition campaign in agricultural science, hygiene, and household arts was conducted in more than 40 cities and villages on the upper Volga by means of a steamboat furnished by the Soviet Government. B. R. Ryall, one of the secretaries on this expedition, has described the work in an article in the January, 1919 issue of "Rural Man-

hood," the publication of the Y. M. C. A. county work department. Mr. Ryall, as will be seen from these extracts, describes vividly the needs of the Russian people, their eagerness for instruction, and the methods employed in aiding them.

THE VOLGA EXPEDITION.

(a) *Plan.*—The plan of the work of the expedition called for the development of two distinct phases of work—one rather strictly related to scientific agricultural education, the other to the more general human and cultural problems of the country. The agricultural department was divided into several subdepartments, each in charge of a specialist, Russian not American, although some had had American training. Special emphasis was placed on field crops, horticulture, poultry, beekeeping, dairy, farm machinery, and cooperation. Most of the men in charge of these departments had risen from the peasant class and knew the needs of these people. The cultural department took up the more general questions which are possibly of even more fundamental importance, in some cases at least. No one who knows Russia can question the need of better hygienic and sanitary conditions. The American Red Cross very kindly financed the department of sanitation and hygiene. Here special emphasis was placed on giving the people in a simple but concrete way some of the elementary conditions for the control of contagious diseases, which are so prevalent in Russia, and some of the simple laws of sanitation. Great interest was manifested in this work and a lot of good seed was sown.

(b) *Babies—play—cooking.*—The Young Women's Christian Association secretaries, Misses Dunham, Brice, Dickerson, and Mrs. Ryall, formerly Miss Childs, cooperated in developing certain phases of work of special interest to women. They concentrated on two lines—domestic science, relating especially to cooking and preserving of food, and the care of children, referring particularly to babies. The Y. W. C. A. also cooperated with the Y. M. C. A. in some special recreational work. This work was at first intended to deal only with purely recreational problems and the actual demonstration of games. The question was so closely related to the whole school question, however, that the work soon broadened out into conferences on a much wider range of school problems. The teachers were everywhere most anxious to become acquainted with the American system of education both as to school curriculums and organizations. They were also deeply interested in our trade and agricultural schools.

(c) *On board of ship.*—Each of the subdepartments mentioned in the foregoing paragraphs had assigned to them booth space on the steamship *Kerzenetz* for exhibition material, with only two exceptions. These exhibits were made as practical as possible. In addition to booth space for exhibits, one room was set aside for a lecture room. When crowded, as it generally was, it would hold possibly 200 people. It was well equipped with an up-to-date moving picture machine and stereopticon. Fortunately, a number of reasonably good reels of Russian agricultural subjects were secured and also a fairly good selection of slides. Only a limited supply of American films and slides was available.

Besides the accommodations for the exhibit, which was fairly large, there were stateroom accommodations for our staff of about 40, as well as the crew of about an equal number. In addition to this were the large dining room, the general office, and the cashier's office. The board bills for the summer amounted to approximately \$45 monthly per man.

The boat was secured at Nijni and the first plan had been to proceed directly to Tsaritzyn, which is near the mouth of the Volga River, and then work up the stream. The internal revolutionary conditions, however, prevented the expedition from going any farther south than Simbirsk. All summer long the plans had to be changed

to meet prevailing political conditions, and the work was greatly handicapped. Yet in spite of all the difficulties, it is really a question if this is not the most valuable piece of work that the Y. M. C. A. has done in Russia. It was a great period of seed sowing. During the summer the exhibition was opened at 44 different places on the Volga and Oka, with an attendance of over 30,000 people. No one dare prophesy what may be the fruit of this summer's work.

(d) *Superstitions that we met.*—Many interesting experiences fell to the lot of the expedition. The almost universal request for the exhibit to stay longer and to come again another year was sufficient evidence of the value of the work. If political conditions would permit permanent work, there are many towns where association work could be opened at once. The people are hungry for just the thing that the association can give. At one place the boat was $2\frac{1}{2}$ versts¹ from the town. It had been raining hard all day, and the paths were nothing but slippery mud. No one had the faith to expect more than perhaps a baker's dozen of visitors, but nearly 300 people plowed through the mud and the rain, some of them coming not from the nearest town, but from a town 6 versts away. Similar instances can be given all along the line. Of course there were also many superstitions to overcome. Especially was this true in the sections where the Old Believers predominated. In some places they said that we planned to get all the children on board and then run away with them. Others said that we were trying to get the people down on the bank of the river and would then turn the machine gun on them. Still others said that the Red Triangle sign we had painted on the side of the boat was the sign of the devil and the Antichrist. This last superstition we met everywhere, especially among the priests of the Old Believers. The Orthodox priests held that it was the sign of a certain Jewish antichristian organization. This attitude has practically compelled us to give up the use of the Red Triangle among the peasants. In other places the peasants thought that we were representatives of the Red Guard come to take their land and food away from them. At still another place the priest and the doctor, who were with us, were reported to have been seen putting poison into the village wells. One day's stay in a village was enough to dispel all of these superstitions. Out of these very superstitions and objections there came the advantage of putting before the people the purpose of the association, which we possibly would not have had in any other way.

(e) *A day's work.*—An average day's work may be of interest. The boat moved from one town to the next some time during the night, docking at the regular pier. After breakfast most of the members of the staff would go out into the community, each member following up his particular interest, the instructor in beekeeping getting in touch with the beekeepers, the dairyman with the local men who were interested in that line, others calling on the priests, the school teachers, cooperators, etc. The program on the boat opened at 2 o'clock, with special lectures for the children. At 4 o'clock would be a conference with the teachers on recreation and other school problems. At the same time in another part of the boat would be a conference with the men especially interested in cooperative work. The program for the adults opened at 6 in the evening, the first hour or so being given to an explanation of the exhibit in the booths; then would begin the program in the lecture room, illustrated by films or with slides. The program would run as follows: Care of Children; the Canning and Preserving of Food; Talk on the Y. M. C. A. Work; Field Crops, Dairy, Poultry. Very frequently special groups would get together for conference on special phases of agriculture. Each evening a conference was held.

Siberia.—In the summer of 1918, classes in English and French were begun among Russians in Moscow and among the Czech soldiers in Siberia. At Vladivostok, Harbin, Habarovsk, and Irkutsk,

¹ One mile equals $1\frac{1}{2}$ versts.

during the winter of 1918-19, classes, particularly in English, were in operation at civilian Y. M. C. A. centers in these cities. This work assumed a substantial character at Vladivostok, and the applicants for enrollment far exceeded the supply of teachers and material available.

The Y. M. C. A. Bulletin, published biweekly at Vladivostok by the national headquarters of the Young Men's Christian Association in Siberia, has much material on the educational work in Siberia and with the armies in north Russia. Despite disturbed conditions, decided progress is being made.

R. J. Reitzel, director of the lecture bureau, gives a full account of that service, from which these extracts have been taken:

The work of the Y. M. C. A., so far as adapting itself to the needs of Russia is concerned, has been experimental. This is especially true of the work of the lecture bureau. The object of this part of this report is to show what facts, as gathered from experiences throughout the past winter, are worthy of interest and consideration.

First. Scientific demonstrated lectures on "The Gyroscope" and "Wireless Telegraphy" have been delivered by Prof. C. H. Robertson in Vladivostok, Pogranechnia, Handahedze, Changchun, Kirin, Habarovsk, Harbin, Irkutsk, Ekaterinburg, Chelyabinsk, Petropavlovsk, Omsk, and Tomsk. This tour, including a trip to China, has taken the better part of a whole year, during which time Prof. Robertson traveled close on to 20,000 miles under most trying conditions. A few figures which show the gratifying results in attendance and appreciation called forth by Prof. Robertson's lectures are the following: Vladivostok, 14,160; Ekaterinburg, 4,225; Irkutsk, 4,540; Omsk, 10,930; Tomsk, 5,791. The grand total attendance is 54,931.

The different groups served by these lectures were from all the allied soldiers in Siberia, with special campaigns for the Czecho-Slovaks, and in the Russian cities such groups as the school children, railway employees, engineering societies—some lectures being for the educated class of people and many especially designed for groups of working men. In Omsk special interest was manifested by the minister of trade and industry, and in Tomsk, the cultural center of Siberia, the lectures were received with great enthusiasm by the leaders of the educational institutions. The great service that Prof. Robertson has rendered Russia in his two years of lecturing here, as well as the value of his work to the association movement in its introductory stage in this land, can not at this time be measured or stated. Prof. Robertson summed up the possibilities most significantly at the conclusion of his lecture tour and his second year in Russia when he said "Russia without a doubt is and will be one of the greatest lecture fields in the world."

Second. Illustrated lectures: The need for a complete library of slides for illustrated lectures, upon all lines of scientific, vocational, and popular subjects, with manuscripts and proper facilities for circulating the same, has been fully tested out and proven. In Habarovsk these illustrated lectures have been held in the town hall, with the hearty indorsement of the mayor. The lectures were given by a local Russian educator, whose services added greatly to the value of the slides and texts. This is the ideal we have in mind, namely, the stimulating of volunteer lecture work in the local association.

In the development of the Russian texts for these lectures we are now having them written in Russian instead of depending upon translations.

Third. Educational films: Still another experiment that has been fully carried out shows the value of an educational film service in the city centers and country communities, and since little publicity has been given to this part of the work heretofore

a little more space should be devoted to it. In our city work for civilians the call for educational films with a bit of comedy thrown in has been way in excess of what we have been able to supply. Russian educators, who are members of our committees on city work, testify to the great possibilities of this sort of work as an educational feature. The showing of educational films has not been confined to the Y. M. C. A. building alone; programs have been given gratuitously in city schools and before other groups, such as railway employees, sport clubs, Boy Scouts, soldiers, etc., so that it thus becomes a great possibility for extension work.

The value of all this is brought home to us when we realize that good pictures offered to the general public in the moving-picture theaters are few and far between. Graham reports in his book on Russia that a local Russian newspaper made a survey in five towns of just what was being offered the Russian public by way of films. The census in 1917 was as follows: Russian cinemas—Scientific, 2 per cent; historical, 3; industrial, 3; nature, 4; farce, 20; lurid drama, 60; polite drama, 8 per cent.

Also we must realize that the greatest number of these films were produced in Germany. A year ago in Vladivostok practically all the films shown were of German origin and had running through them a subtle thread of German propaganda. Thus we see very good reasons for maintaining a counterattraction and the great need of securing the right kind of films. At the present time we have machines placed in the city work at Vladivostok, Habarovsk, Harbin, Irkutsk, Omsk, and Tomsk.

There has never been any doubt in our minds about the value of the educational films in the present villages of Siberia. When we see the great need of education there and realize that the enlightening influence of the centers of education and the interchange of ideas have practically been confined to the intellectually walled cities of Russia; further, when we realize the dearth of books, other reading matter, and all the modern facilities for public enlightenment, and also consider that even though there were an abundance of such things, 70 to 80 per cent of the peasants can not read or write, we can appreciate what a scientific short cut in the problem of educating the peasant is a picture thrown on the screen. The simple peasant can understand with delight and interest, and when he hears the interpretation given by a capable and sympathetic lecturer in the language of his own village he beams with delight as the wonders of the outside world are unfolded to him.

During the past winter the committee on public information, in cooperation with the Zemstvo, has circulated throughout a number of the villages in Primorskaya Province two moving picture lecture outfits. In these, pictures were shown on such subjects as industry, agriculture, mining, natural scenery, and community welfare, while usually the occasion was concluded by a good clean comedy, which never failed to create a laugh and send the people away happy. The lecturers accompanying the films were capable Russian engineers and agricultural experts. Interesting testimonies in regard to the impressions created were secured through the maintenance of a special box, into which those who viewed the films could drop written criticisms. A few of these testimonies will suffice to show the success of the project:

1. From a 10-year-old boy: "The best picture I liked was about school, where children walked from the school. I liked it because it was so nice."
2. From a 28-year-old peasant: "Exceedingly thankful to the lecturers for their great work. I hope that with your cooperation we will have on the screen in our village, Petrovka, a number of pictures relating to farming—like preservation of forests, scientific dairying, etc., which pictures, I believe, would awaken initiative in our slumbering population."
3. Another one: "I liked all the pictures, but best of all was that about alcohol, because I suffer myself from it, but nobody believes that drinking is a disease. Continue your good work; thanks very much. Vorobiev."
4. Another says: "Yes, the peasant has seen light for the first time and this will bring good results. The education will leave a deep trace in the souls of the dark people,"

who, watching the pictures, dream of what they saw and heard. But the people forget and you do not remind them of it, that it is not enough to listen; we must work, act, for sweet-voiced vultures sop and drink the blood of the people."

The swarming of the audience around the lecturer after the performance is over, asking all sorts of questions, reveals the eagerness of the rural population for education, as well as their desire to analyze critically their own mode of life to the end that they may lift themselves to a higher plane of civilization. Likewise the need for wholesome entertainment, in the rural districts, is even more paramount than in the city.

"Fourth. Libraries. Another factor in our service will be the circulating of libraries, which have been ordered from our publication bureau in Berne, Switzerland. Two hundred libraries of 50 Russian books each will be distributed from various centers and sent out through some such organization as the Zemstvo to the villages. The books are standard Russian educational publications and should find a hearty welcome in districts where they have practically nothing at present to read.

Fifth. Army work. The lecture bureau has been able to afford a great deal of service to the American Expeditionary Force soldier work in the way of educational lectures. The plan has been to use all possible lecture talent of the secretaries who have come out from America, and almost every secretary has been used in this way. The Young Men's Christian Association is fortunate enough to have secretaries whose travels have covered the globe and who have participated in some of the most interesting events of the past few years. Our ideal in regard to our soldiers has been to furnish one good lecture a week at all points where there are secretaries, and this with one or two exceptions has been carried out.

In the western field, among the Czechs, Mr. K. P. Miller, who is in charge, has done an excellent piece of work of promotion along lecture lines. He has developed some good lectures that he himself has given on numerous tours among the Czechs. He has also interested all the secretaries at work for the Czechs in doing their utmost in maintaining the morale of the men through helpful talks.

Sixth. Besides the above lines of work for Russia, other services that are proving of value are the developing and printing of photographs for individual secretaries and for publicity purposes, and the issuance of the weekly Y. M. C. A. Bulletin. Also a great deal has been done in the way of turning out posters and suitable pictures for decorating various soldier huts. It should be noted also that we have installed 10 movie machines in the Army work for our soldiers in this district, and will soon have that number operating in the western field for the soldier work there.

July 5 a training course for Russian teachers—men and women—was started with an attendance of about 20 teachers from Vladivostok and the surrounding towns and villages. This course, organized by the Y. M. C. A. in cooperation with Russian organizations, is free of charge and its object is to prepare trained men and women for work with children and youth in the cities and villages of Siberia.

Results, as summarized by E. C. Peters.—It is too early as yet to measure results from such an extended and varied program. Too frequently the association leaders were handicapped by a lack of materials and equipment to carry on the work, besides military necessity compelled the abandonment of programs while in the initial stages of development. It is not too much to say, however, that the ground has been broken in many centers throughout Russia and Siberia, and some seed sown. The real harvest will depend upon the watering and cultivation that must come as the next step in the development of this work. A brief statistical statement might serve to make clear some of the general statements made above.

Number of students in classes at various points.....	550
Number of points at which some educational work was done.....	15
Number reached through lecture programs.....	100,000
Number reached through movie film service.....	200,000

PROGRAM OF ASSOCIATION EDUCATIONAL WORK.

On the basis of experience, supplemented by study of the needs, of local situations and a critical testing of the forms of education that are most likely to meet the needs of the constituency to be served, a standard program of educational activities has been formulated. The main heads under which these activities are grouped are: (1) Reading, through libraries and reading rooms; (2) Lectures and informal talks; (3) Educational clubs; (4) Class lecture series; (5) Evening classes; (6) Association day schools; (7) Extension features; (8) English for foreigners; (9) Special courses; (10) Boys' departments.

Annual examinations are also conducted in certain standard subjects through the educational department of the International Committee.

READING.

As will be seen from an examination of the statistical tables for 1917 and 1918 (Table 2, pp. 51, 52), in 1917 there were 19 associations in each of which 5,000 or more books were drawn from the libraries and used by members; the largest circulation for 1917 is that of west side branch in New York City, with 86,120 books; the smallest circulation is that of Richmond, Va., with a record of 5,040 books. In 1918, 13 associations report 5,000 or more books drawn and used. Presumably the falling off is due in part to disturbed conditions as a result of the war, and probably also to the growth of the public library service with which agency many associations are increasingly cooperating. It should be noted, furthermore, that of the 19 associations reporting in this table for 1917, 8 were railroad associations, and in 1918, 6 were railroad associations. In 1918 the west side branch of New York City also shows the largest circulation, namely, 85,854. In 1917, on the basis of reports received from 858 associations, 555,371 books were read, of which 347,319 were in city associations, 206,525 in railroad associations, 1,527 in colored men's associations. In 1918 on the basis of reports from 774 associations, 681,080 books were read by members, distributed as follows:

City associations.....	296,523
Railroad associations.....	253,183
Colored men's associations.....	3,074
Army and Navy associations.....	128,300

In addition to facilities for reading through libraries, a large number of associations maintain reading rooms provided with the best periodicals, magazines, and journals, particularly those relating to business and industry.

In 1917, 35,598 periodicals were reported as on file, distributed as follows:

City associations.....	26,197
Railroad associations.....	8,895
Colored men's associations.....	506

In 1918 there were 41,008 on file, distributed as follows:

City associations.....	30,981
Railroad associations.....	8,819
Colored men's associations.....	623
Army and Navy associations.....	585

While the reading of books and periodicals is, to some extent, for purposes of recreation, there is an increasing effort to guide men and boys in systematic courses of reading and study, and to relate their reading to lectures and class work done under the auspices of the educational department.

Plans are now being considered, in cooperation with the American Library Association, for an extension of the work of the associations, especially in making larger and more effective use of the resources of public libraries. The admirable results secured in the war camps through such cooperation with the war service of the American Library Association, give good grounds for looking for a large development in this field with the home associations in the near future.

LECTURES.

As will be noted from Table 3, lectures and practical talks constitute an important service of the associations. These lectures and talks cover a wide range of topics. During the period of the war, much use was made of this means of education to give members and others in attendance an understanding of the issues at stake, and was an effective means of combating the propaganda against the interests of the United States and of the Allied nations. Other lectures deal with questions relating to the conduct of life and technical and business subjects. The associations have been able to secure as lecturers, men of the highest ability; and in a number of cities, these lectures are regarded as furnishing exceptional opportunities. The attendance is not limited to members. In some instances, admission fees are charged, but if so, are merely nominal, as the expenses are, in the main, met through contributions.

The informal talks are usually given by men from the community, and to small groups, as a rule, upon subjects of immediate interest. Oftentimes, as a result of such talks, an interest develops that leads to the formation of a reading club or of a class to pursue the subject exhaustively.

As will be noted from the tables, there were in 1917, 76 associations reporting 40 or more educational lectures and talks each, and in

1918, 39 associations. Here again, the influence of the war appears in the smaller number maintaining this form of work. The totals show that in 1917 there were given 14,375 lectures and talks, distributed as follows:

City associations.....	9,237
County associations.....	2,390
Railroad associations.....	2,239
Colored men's associations.....	378
Army and Navy associations.....	131

In 1918 there were given 11,931 lectures and talks, distributed as follows:

City associations.	7,888
County associations.....	1,074
Railroad associations.....	2,707
Army and Navy associations.....	262

EDUCATIONAL CLUBS.

The alert secretary, general or educational, is constantly encouraging groups of men or boys to organize educational clubs, even for a short time, for the purpose of following up some field of research, study, or discussion. A wide range of interests is thus appealed to. Such club work has a very definite and important relation to the service which the associations render through class work, lectures, practical talks, libraries, and reading rooms. Oftentimes the result of a talk or a lecture, or the reading of a book is to arouse sufficient interest on which to base such an organization; and again, out of such a club there frequently results the organization of a class to pursue consecutive study. Among the fields in which these clubs are especially active there may be noted music, camera, science, literature, debating, current topics, and in art, technical, and vocational subjects. The membership of a club varies from 5 to 15. It is important that a leader should be selected who will hold the men or boys together in a definite program for a month or a year. In 1917 there were reported 25,716 educational club members; and in 1918, 27,411 club members. Table 4 gives a list of associations reporting five or more educational clubs with a total of 100 or more members. In 1917 there were 40 associations reporting 5 or more educational clubs; in 1918, 30.

CLASS-LECTURE SERIES.

The class-lecture series is a form of university extension work for the purpose of pursuing a fairly consecutive study of some subject largely vocational under a leader who conducts quizzes and sometimes written examinations. This form of educational work differs from class work in that it consists of lectures supplemented by vari-

ous tests. The most common subjects pursued in these lecture series are advertising, salesmanship, credits, efficiency, memory training, foreign trade, and real estate. The men in attendance are, as a rule, those engaged in active business, many of whom have had exceptional opportunities in education through college and high school. There were in 1917 in attendance on these courses 9,486 men, and in 1918, 5,176. According to Table 5, in 1917 there were 47 associations reporting class-lecture series with 50 or more students; and in 1918, 20 such associations.

EVENING CLASSES.

At the very beginning of its educational work the associations made much use of evening classes as an opportunity for men and boys employed during the daytime to continue their education in the field of liberal studies and business and technical training. A wide range of subjects are offered in these classes, with particular emphasis upon commercial, industrial, and elementary work. The courses are, as a rule, arranged in two terms each of from 25 to 30 sessions. A class in a given subject meets usually twice or three times a week. The length of the course and the number of sessions a week depend, however, upon the character of the work. Students pay tuition fees varying from \$1 to \$50 or more per course, according to the length of the course and the expense of maintenance. In elementary subjects, particularly in the work for foreigners in English and in Americanization, the charge is usually nominal. The age of students ranges from 16 to 56. This type of work may be regarded as perhaps the most important undertaken by the associations, as it provides a much-needed opportunity for the wage earner to supplement his early education and to equip himself for more effective service with resultant gain in wage-earning capacity and in usefulness as a member of society.

In 1917 there were reported in attendance in the evening schools 49,533 students, distributed as follows:

City associations.....	46,876
County associations.....	573
Railroad associations.....	1,548
Colored men's associations.....	382
Army and Navy associations.....	654

In 1918 55,438 students were reported in attendance in the evening schools, distributed as follows:

City associations.....	51,231
County associations.....	293
Railroad associations.....	1,279
Colored men's associations.....	239
Army and Navy associations.....	2,396

The expense of the evening schools, met in part from tuition receipts, amounted in 1917 to \$304,336. During the year 1918 the work of the evening schools was modified largely to meet the needs for training men for technical subjects connected with the Army, such as telegraphy, wire and wireless, aviation mechanics, automobile instruction, and first aid. An extensive program of work was initiated and carried on successfully for this purpose until the armistice was signed in November, 1918. Table 6 shows associations reporting over 500 students and where such a number is 20 per cent or more of the association membership. There were in 1917, 35 such associations and in 1918, 39.

ASSOCIATION DAY SCHOOLS.

Association day schools are intended to meet the needs of boys of secondary-school age who wish to supplement the education received before they left school (in many cases to enter employment) and later realize the needs of better training. Another and increasing group of boys seeking these opportunities for education in the association are those who, for some reason or another, prefer these schools to others operating in the community. Many of the city associations with their fine buildings and equipment, including class and lecture rooms, workrooms, and laboratories well equipped for instruction, and also with admirable provisions for physical training in the shape of gymnasiums, with opportunities for bringing boys under wholesome religious, and moral influences, are well equipped for doing a large and valuable educational service to boys from 12 to 20 years of age. In a number of instances these schools have attained a distinct and separate organization from the other educational activities with their own faculties, including principals, department heads, and teachers. The tuition fees depend largely upon the character of the work done and range from \$10 to \$20 a month. The school hours are from 8.30 in the morning to 2 or 4 in the afternoon, with a program combining supervised study, recitation, practical work, and recreation. A close oversight is kept of the physical and moral development of the boys, in addition to the opportunities for a thorough study. Such schools are necessarily limited to the larger centers of population. They may be said to consist of three groups: (1) Those that provide for the needs of boys of exceptional ability; (2) for those who are somewhat handicapped in the pursuit of their studies; and (3) for those who wish to avail themselves of the all-around program of the association.

The association day school has a definite opportunity of putting into effect the most recent approved methods of instruction, and of serving a valuable purpose as a pioneer in the field of secondary education.

There were in 1917 in attendance on the association day schools 7,279 students, and in 1918, 9,632 students. As will be noted, there is a distinct growth in this form of association educational service. The expense of these day schools in 1917 amounted to \$87,267, and in 1918, to \$196,564. Practically all of the association day school work is done in city associations, more especially those in the larger centers. As will be seen from Table 7 there were in 1917, 20 associations reporting day work, with 50 or more students, and in 1918, 26.

BOYS' SUMMER SCHOOLS.

In the summer of 1916 there were in attendance on summer schools maintained by the associations, 2,350 students; and in the summer of 1917, 2,263 students. For the most part, those in attendance on such schools are boys of grammer and high-school age who are desirous of making up work in which they failed, or in securing more rapid promotion by anticipating subjects to be offered later in their regular high-school courses. There is a fine spirit of cooperation between public school authorities and the association in the maintenance of this work; and in certain cases, the teachers employed are those who are regularly engaged in the work of the public schools.

According to Table 8, there were in 1916, 37 boys' summer schools with 25 or more students; in 1917, there were 32 boys' summer schools with 25 or more students.

BOYS' DEPARTMENT.

Notwithstanding the great progress that has been made in recent years in the raising of the age for leaving school, and in the provision of continuation schools for boys who are employed, the association continues to find an important field of service in offering class work to boys. In fact, there has been, since 1916, an increase in the number of employed boys in classes, as the enrollment figures for these three years are as follows:

1916.....	.....	11,724
1917.....	.....	12,484
1918.....	.....	15,615

The development of this phase of the educational work of the associations is also apparent from Table 9, which shows that in 1917 there were 23 departments with 100 or more boys in class work, and in 1918, 33 departments. Doubtless, this increase in the number of associations offering such class work and in the number of boys enrolled represents a definite effort to meet the need of such instruction, in view of the number of boys who, as a result of the large earnings offered in connection with war industries, left school prematurely.

It is probable that these statistics represent a very valuable contribution on the part of associations as an influence offsetting the tendencies to disorder and demoralization of youth that were noted with anxiety for a time during the war period.

ROLL OF HONOR.

As an incentive to the maintenance of educational opportunities for employed boys, the International Committee maintains an educational roll of honor, in which recognition is given to associations winning the largest number of certificates for successful examinations on school subjects among boy members, and also for associations in which the largest per cent of boy members win such certificates. This roll of honor appears in Table 11.

EXAMINATIONS.

The International Committee conducts annual examinations in four fields of work, namely, educational subjects, first aid to the injured, book tests for association, employed officers, and Bible study tests. These examinations constitute a definite influence in the maintenance of high standards of work, and also furnish an incentive to thorough work on the part of students. In 1917, 8,787 persons took part in these tests, distributed as follows:

Educational subjects.....	2,620
First aid to the injured.....	1,200
Book tests.....	479
Bible study.....	4,488

In 1918, the number was 3,401, distributed as follows:

Educational subjects.....	657
First aid to the injured.....	690
Book tests.....	71
Bible study.....	1,983

GENERAL SUMMARY.

The extent and amount of educational work that is being done through the associations and its development since 1893 can be seen from a study of Table 10. While in some instances, and in particular features, the work may show a falling off in certain years, there has been throughout this entire period of a quarter of a century steady consistent progress. Thus, the number of lectures and talks have increased from 1,900 to 11,931. The number of associations with educational secretaries has increased from 1 to 87; the number of paid teachers from 415 to 2,203; the total different day and evening students from 12,000 to 81,899; the tuition receipts from \$2,000 to \$823,490. This latter figure shows a falling off from the receipts in 1917 of about \$300,000. On the other hand, the total expense of

all features reached the highest figure in 1918, namely, \$1,433,887. The loss in receipts is probably due to the fact that many associations made generous contributions in the way of educational service during the war, either free of charge or at an actual loss. Also probably the failure of certain associations to report may be responsible for the decline in the amount of tuition receipts. The educational war work of the associations, in all its different forms, constitutes an impressive showing, and means that a very definite service was rendered to hundreds of thousands of men and boys at a time when such help and assistance are most effective in the development of character and in the increase of efficiency and skill in one's calling.

EQUIPMENT.

In most instances the educational department is housed in the association building in quarters especially furnished for educational work, with desks, chairs, blackboards, laboratories, workshops, drafting rooms, and office outfit for the administrative body. In recent years the educational work in certain associations has grown to such dimensions that it has been found desirable to provide separate buildings for the technical phases, such as instruction in the automobile, in the tractor, and in aviation mechanics. Educational departments housed in the buildings are enabled to use the libraries, reading rooms, assembly halls, and also to secure the advice and counsel of the men in the association, of experts in physical education, and in boys' work. Through the membership and the management of the association, students, both men and boys, are brought into wholesome contact with virile and strong business and professional men.

ORGANIZATION.

In the case of 87 associations an educational secretary who specializes in this field is employed. The educational secretary is selected with reference to his preparation through school and college, and also as to his ability as an executive and general manager. Well-organized educational departments do not, as a rule, expect the educational secretary to do any teaching, as he is fully occupied in the work of management and of promotion.

The staff of an educational secretary consists, in the large associations maintaining strong educational work, of heads of departments or schools, together with teachers in special subjects. Such schools may be an association day school, an automotive school, a school of commerce, or a school of cooperative engineering. The heads of departments are selected with reference to their knowledge and skill in their own particular field, and also to some extent with regard to

their business and executive capacity. Among the associations maintaining large staffs there may be noted the following:

Associations.	Educational secretaries and assist- ants.	Paid teachers and leaders.	Serving on educational committees.
Boston.....	17	129	39
Chicago, central.....	4	33	8
Cleveland, central.....	10	65	13
Detroit, Adams Avenue.....	9	115	24
Minneapolis, central.....	3	26	28
New York, west side.....	8	97	
Philadelphia, central.....	11	85	35
Portland, Oreg.....	5	35	10
San Francisco, Golden Gate.....	3	30	3

In smaller associations, where the staff is limited to one or two persons, it is obviously not possible to carry on very extensive or highly organized work. In smaller associations, oftentimes, the educational department is put in charge of an employed officer as only one part of his responsibilities and duties. Here, again, the range of activity is necessarily limited.

An important element in the success of any educational department is the educational committee, which, in a well-managed association, is composed of leading business and professional men with one or two representatives of public schools or colleges. The function of the educational committee is to consider plans, programs, and policies, and to make recommendations to the board of directors with regard to appropriations and appointments. A strong educational committee constitutes one of the most important aids to an educational secretary.

STATISTICAL TABLES.

TABLE 1.—*Associations reporting educational expenses over \$3,000, where such amount is 15 per cent or more of the total current expenses of the association.*

A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

State.	Association.	Expense.	Per cent.
Colorado.....	Denver.....	\$20,917	22
Connecticut.....	Bridgeport.....	9,197	16
District of Columbia.....	Washington.....	22,800	19
Illinois.....	Chicago (central).....	46,517	31
Maryland.....	Baltimore.....	18,408	18
Massachusetts.....	Boston.....	104,565	51
Do.....	Westfield.....	3,931	60
Michigan.....	Lansing.....	7,315	25
Minnesota.....	Minneapolis.....	12,390	88
Missouri.....	St. Louis.....	9,346	15
New York.....	Albany.....	4,654	21
Do.....	New York (Twenty-third Street branch).....	44,708	31
Do.....	New York (west side branch).....	76,479	20
Ohio.....	Cincinnati.....	26,278	38
Do.....	Cleveland.....	36,089	17
Do.....	Columbus.....	9,555	18
Do.....	Dayton.....	13,700	75
Washington.....	Spokane.....	6,581	16
Illinois.....	Dupo (railroad).....	18,063	59

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

State.	Association.	Books.	Per cent.
California.....	Los Angeles.....	\$38,000	15
Do.....	San Francisco.....	23,606	15
Colorado.....	Denver.....	20,041	23
District of Columbia.....	Washington.....	21,301	15
Illinois.....	Chicago.....	50,510	26
Maryland.....	Baltimore.....	18,318	16
Massachusetts.....	Boston.....	160,037	38
Do.....	Worcester.....	19,478	36
Michigan.....	Detroit.....	171,581	49
Do.....	Lansing.....	3,743	15
Minnesota.....	Minneapolis.....	11,308	18
New Jersey.....	Newark.....	17,330	20
New York.....	Brooklyn (Bedford branch).....	34,374	21
Do.....	New York (east side branch).....	7,991	15
Do.....	New York (Twenty-third Street branch).....	45,807	26
Ohio.....	New York (west side branch).....	116,759	29
Do.....	Cincinnati.....	28,627	39
Do.....	Cleveland.....	42,028	17
Do.....	Columbus.....	35,037	35
Oregon.....	Lorain.....	3,143	25
Pennsylvania.....	Portland.....	43,722	26
Washington.....	Hazleton.....	5,639	30
	Seattle.....	22,756	15

TABLE 2.—*Associations in which 5,000 or more books were drawn and used.*

B. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

Provinces and States.	Association.	Books.	Provinces and States.	Association.	Books.
Manitoba.....	Winnipeg.....	8,106	Pennsylvania...	Philadelphia (central)....	5,842
Quebec.....	Montreal.....	22,300	Ontario.....	St. Thomas (railroad)....	5,225
Dist. Columbia.....	Washington.....	20,068	Minnesota.....	St. Paul (railroad)....	20,180
Indiana.....	Richmond.....	6,040	Missouri.....	St. Louis (railroad)....	5,323
Iowa.....	Davenport.....	7,000	New Jersey.....	Camden (railroad)....	23,759
New York.....	Albany.....	39,844	New York, Grand Central Terminal (railroad)	New York, Grand Central Terminal (railroad)	29,003
Do.....	Brooklyn (central)....	19,515	Pennsylvania...	Conemaugh (railroad)....	5,298
Do.....	Buffalo.....	5,895	Pennsylvania...	Do.....	20,072
Do.....	New York (Twenty-third Street branch).....	28,638	Pennsylvania...	Philadelphia (P. R. department)....	6,846
Do.....	New York (west side branch).....	86,120	Do.....	Sunbury (railroad)....	

TABLE 2.—*Associations in which 5,000 or more books were drawn and used—Contd.*

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

Provinces and States.	Association.	Books.	Provinces and States.	Association.	Books.
Quebec.....	Montreal.....	23,100	Arkansas.....	Pine Bluff (railroad).....	35,561
Massachusetts.....	Boston.....	6,194	Kentucky.....	Louisville (railroad).....	17,730
New York.....	Albany.....	49,980	Missouri.....	St. Louis, Union Station (railroad).	6,630
Do.....	Buffalo.....	5,805	New Jersey.....	Camden (railroad).....	12,039
Do.....	New York (Twenty-third Street branch).....	9,808	New York.....	New York Grand Central Terminal (railroad).	26,017
Do.....	New York (west side branch).....	85,854	Pennsylvania.....	Sunbury (railroad).....	7,123
Pennsylvania.....	Philadelphia (central branch).....	8,598			

TABLE 3.—*Associations reporting 40 or more educational lectures and practical talks.*

A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

Provinces and States.	Association.	Lec-tures.	Provinces and States.	Association.	Lec-tures.
Alberta.....	Calgary.....	76	New York.....	New York (Harlem branch).....	55
British Columbia.....	Vancouver.....	70	Do.....	New York (Twenty-third Street branch).....	48
Ontario.....	London.....	127	Do.....	New York (west side branch).....	75
Do.....	Toronto.....	61	Do.....	Poughkeepsie.....	62
Quebec.....	Quebec.....	71	Do.....	Troy.....	50
California.....	Oakland.....	41	Do.....	Walden.....	38
Colorado.....	Denver.....	46	Do.....	Waterford.....	65
Connecticut.....	Bridgeport.....	161	Ohio.....	Cincinnati.....	16
Do.....	Hartford.....	44	Do.....	Cleveland.....	43
Do.....	New Haven.....	218	Do.....	Hamilton.....	149
Georgia.....	Atlanta.....	57	Pennsylvania.....	Chester.....	51
Hawaii.....	Honolulu.....	96	Do.....	New Castle.....	69
Illinois.....	Chicago (board).....	142	Do.....	Philadelphia (central).....	109
Do.....	Chicago (central).....	103	Do.....	Pittsburgh (central).....	59
Do.....	Chicago (Ivyde Park).....	50	Do.....	Pittsburgh (East Liberty).....	56
Do.....	Chicago (Sears-Roebuck).....	57	Do.....	Wilmerding.....	44
Do.....	Chicago (west side).....	46	Rhode Island.....	Providence.....	159
Indiana.....	Evansville.....	44	South Carolina.....	Darlington.....	50
Do.....	Indianapolis.....	150	Tennessee.....	Chattanooga.....	41
Maryland.....	Baltimore.....	101	Virginia.....	Schoolfield.....	42
Massachusetts.....	Boston.....	75	Washington.....	Virginia.....	112
Do.....	Cambridge.....	230	Illinois.....	Chicago, Dearborn Station (railroad).....	55
Do.....	Lawrence.....	40	Indiana.....	Elkhart (railroad).....	79
Do.....	Lowell.....	55	Maine.....	East Deering (railroad).....	59
Do.....	Lynn.....	50	Maryland.....	Portland (railroad).....	60
Michigan.....	Detroit (Adams Avenue).....	103	Michigan.....	Baltimore (railroad).....	82
Do.....	Flint.....	72	Missouri.....	Durand (railroad).....	161
Do.....	Grand Rapids.....	57	St. Louis, Union Station (railroad).....	94	
Minnesota.....	Duluth.....	55	Indiana.....	Camden (railroad).....	108
Do.....	Minneapolis.....	122	New Jersey.....	New York, Grand Central Terminal (railroad).....	61
Missouri.....	St. Louis (industrial).....	48	Pennsylvania.....	Philadelphia (Broad Street).....	63
Nebraska.....	Omaha.....	75	Do.....	Punxsutawney.....	28
New Jersey.....	Bayonne.....	43	Indiana.....	Indiana.....	77
Do.....	Camden.....	85	Missouri.....	Indianapolis (colored).....	41
Do.....	Trenton.....	50	Missouri.....	Kansas City (colored).....	41
New York.....	Brooklyn (eastern district).....	63	Virginia.....	Newport News (colored).....	74
Do.....	Brooklyn (Greenpoint branch).....	127			
Do.....	Buffalo.....	100			
Do.....	Gloversville.....	113			
Do.....	Newburg.....	51			
Do.....	New York (Bronx Union branch).....	57			

WORK OF THE YOUNG MEN'S CHRISTIAN ASSOCIATIONS. 655.

TABLE 3.—*Associations reporting 40 or more educational lectures and practical talks—Continued.*

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

Provinces and States.	Association.	Lectures.	Provinces and States.	Association.	Lectures.
New Brunswick.	St. John.....	87	New Hampshire.	Berlin.....	55-
Ontario.	Hamilton.....	64	New Jersey.	Camden.....	66-
Do.	London.....	130	Do.....	Brooklyn (Bush Terminal).	54
Do.	Toronto (central branch)	68	Do.....	Brooklyn (eastern district),	59
Do.	Toronto (west end).....	125	Do.....	Buffalo (central).....	84
California.	Los Angeles.....	133	Do.....	New York (Bronx Union branch).....	119
Do.	San Francisco (Golden Gate Avenue).....	50	Do.....	New York (Harlem branch).....	60
Colorado.	Colorado Springs.....	82	Do.....	New York (west side branch).....	182
Connecticut.	Hartford.....	55	Ohio.....	Cincinnati.....	52
Do.	New Haven.....	568	Pennsylvania.	Belleville.....	50
Illinois.	Chicago (board).....	240	Do.....	Germantown.....	150
Do.	Chicago (Sears-Roe buck).....	106	Do.....	New Castle.....	120
Do.	Chicago (west side).....	60	Do.....	Philadelphia (central).....	66
Indiana.	Indianapolis.....	174	Do.....	Pittsburgh (East Liberty).....	89
Do.	Muncie.....	56	Tennessee.	Nashville.....	75
Kansas.	Salina.....	59	Texas.	Dallas.....	92
Massachusetts.	Boston.....	106	Virginia.	Schofield.....	50
Do.	Cambridge.....	186	Washington.....	Seattle.....	128
Michigan.	Flint.....	61			
Minnesota.	Minneapolis (central branch).....	126			
Missouri.	St. Louis (industrial).....	185			

TABLE 4.—*Associations reporting 5 or more educational clubs with 100 or more members.*

A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

Association.	Clubs.	Members.	Association.	Clubs.	Members.
Fresno, Calif.....	5	112	Brooklyn (central branch), N.Y.	7	238
Oakland, Calif.....	5	190	Brooklyn (eastern district), N.Y.	6	106
Denver, Colo.	5	251	Brooklyn (Greenpoint branch), N.Y.	5	160
Bridgewater, Conn.	7	140	Buffalo, N.Y.	10	403
New Haven, Conn.	10	237	Elmira, N.Y.	5	198
Canton, Ill.	6	185	New York City (west side).....	5	453
Freeport, Ill.	11	194	Troy, N.Y.	5	281
Davenport, Iowa.	10	200	Charlotte, N.C.	5	116
Bar Harbor, Me.	5	101	Spry, N.C.	5	140
Boston, Mass.	29	661	Cleveland, Ohio.	8	351
Cambridge, Mass.	7	301	Findlay, Ohio.	5	160
Gloucester, Mass.	5	130	Hamilton, Ohio.	6	186
Salem, Mass.	7	181	Philadelphia, Pa. (Central).	5	141
Detroit, Mich.	7	950	Pittsburgh (Hilltop branch), Pa.	5	121
Jackson, Mich.	9	104	Williamsport, Pa.	5	118
Saginaw, Mich.	5	107	Wilmerding, Pa.	10	170
Minneapolis, Minn.	6	157	Providence, R.I.	9	391
Winona, Minn.	13	236	Houston, Tex.	6	120
Omaha, Nebr.	8	190	Appleton, Wis.	5	124
Trenton, N.J.	7	154			
Brooklyn (Bedford branch), N.Y.	8	526			

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

Montreal, Quebec.....	12	355	New York City (west side branch), N.Y.	66	1,221
Hartford, Conn.	14	283	Troy, N.Y.	6	217
Chicago, Ill. (North Avenue Larabee Boys' Club).....	9	157	Charlotte, N.C.	6	119
Chicago, Ill. (Wilson Avenue department).....	9	206	Akron, Ohio.	7	169
Freeport, Ill.	6	188	Toledo, Ohio.	11	270
Streator, Ill.	6	133	New Castle, Pa.	9	222
Boston, Mass.	17	486	Oil City, Pa.	5	100
Chelsea, Mass.	5	109	Pittsburgh (East Liberty), Pa.	5	142
Salem, Mass.	8	148	Williamsport, Pa.	7	131
Detroit, Mich.	9	975	Schofield, Va.	6	208
Berlin, N.H.	9	210	Spokane, Wash.	11	1,172
Brooklyn (Bedford branch), N.Y.	5	100	Appleton, Wis.	6	110
Buffalo, N.Y.	8	293	Milwaukee, Wis.	10	150
New York City (east side branch), N.Y.	7	107	Wausau, Wis.	5	110
St. Thomas, Ontario (railroad).			St. Thomas, Ontario (colored)....	5	146
Indianapolis, Ind. (colored)....			Indianapolis, Ind. (colored)....	8	236

TABLE 5.—*Associations reporting class lecture series with 50 or more students.*

A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

Association.	Students.	Association.	Students.
Los Angeles, Calif.	85	Trenton, N. J.	150
Denver, Colo.	92	Brooklyn (Bedford branch), N. Y.	333
Bridgeport, Conn.	157	Brooklyn (central branch), N. Y.	365
Hartford, Conn.	205	Buffalo (central branch), N. Y.	230
New Haven, Conn.	118	Elmira, N. Y.	105
Indianapolis, Ind.	70	Hornell, N. Y.	133
Marion, Ind.	128	New York (2 West One hundred and twenty-fifth Street branch), N. Y.	50
Davenport, Iowa	83	Niagara Falls, N. Y.	123
Baltimore, Md.	208	Poughkeepsie, N. Y.	104
Attleboro, Mass.	72	Schenectady, N. Y.	56
Boston, Mass.	180	Cincinnati, Ohio	146
Lynn, Mass.	111	Cleveland, Ohio	553
Pittsfield, Mass.	79	Dayton, Ohio	170
Worcester, Mass.	214	Lorain, Ohio	275
Detroit, Mich.	2,667	Steubenville, Ohio	65
Lansing, Mich.	101	Toledo, Ohio	99
Duluth, Minn.	166	Youngstown, Ohio	359
Minneapolis, Minn.	948	Philadelphia (west branch), Pa.	70
St. Paul, Minn.	56	Pittsburgh (central branch), Pa.	102
Winona, Minn.	68	Providence, R. I.	414
St. Joseph, Mo.	52	Seattle, Wash.	408
St. Louis, Mo.	80	Spokane, Wash.	59
Manchester, N. H.	105	Dubois, Pa. (railroad)	71
Camden, N. J.	81		

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

Association.	Students.	Association.	Students.
Canon City, Colo.	50	New York (Twenty-third Street branch), N. Y.	465
Denver, Colo.	81	Syracuse, N. Y.	98
Bridgeport, Conn.	67	Utica, N. Y.	300
Hartford, Conn.	70	White Plains, N. Y.	127
Sears-Roebuck, Chicago, Ill.	68	Cleveland, Ohio	679
Elgin, Ill.	25	Dayton, Ohio	24
Baltimore, Md.	339	Pittsburgh, Pa. (central)	157
Holyoke, Mass.	106	Providence, R. I.	227
Minneapolis, Minn.	142	Seattle, Wash.	125
Buffalo, N. Y.	60		
New York (Harlem branch), N. Y.	60		

TABLE 6.—*Associations reporting over 500 students in evening classes and where such number is 20 per cent or more of the association membership.*

A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

State.	Association.	Students.	Per cent.
Ontario.	Toronto (Broadview branch).	744	20
California.	Los Angeles.	1,234	20
Do.	San Francisco.	837	20
Colorado.	Denver.	812	20
Connecticut.	Bridgeport.	806	20
Do.	Waterbury.	508	20
District of Columbia.	Washington.	851	20
Hawaii.	Honolulu.	618	20
Illinois.	Chicago (central).	2,680	20
Do.	Chicago (Division Street).	777	20
Do.	Chicago (Sears-Roebuck).	1,304	20
Indiana.	Indianapolis.	913	20
Kentucky.	Louisville.	794	20
Maryland.	Baltimore.	1,137	20
Massachusetts.	Boston.	4,201	20
Do.	Cambridge.	1,228	(?)
Do.	Worcester.	928	20
Michigan.	Detroit (Adams Avenue).	2,781	20
Minnesota.	Minneapolis.	1,671	20
Missouri.	St. Louis (industrial).	1,464	(?)
Nebraska.	Omaha.	765	20
New York.	Brooklyn (Bedford branch).	1,148	20
Do.	Brooklyn (Central branch).	2,160	20
Do.	Buffalo.	1,037	20
Do.	New York (Bronx Union).	624	20
Do.	New York (Twenty-third Street branch).	1,916	20
Do.	New York (west side branch).	5,184	20
Ohio.	Cincinnati.	798	20
Do.	Cleveland.	1,953	20
Do.	Dayton.	1,010	20
Do.	Toledo.	559	20
Do.	Youngstown.	639	20
Pennsylvania.	Philadelphia (central).	4,910	20
Do.	Pittsburgh.	505	20
Washington.	Seattle.	1,319	20

¹ Extension classes.

WORK OF THE YOUNG MEN'S CHRISTIAN ASSOCIATIONS. 657

TABLE 6.—*Associations reporting over 500 students in evening classes and where such number is 20 per cent or more of the association membership—Continued.*

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

State.	Association.	Students.	Per cent.
Ontario.....	Toronto (Broadview branch).....	2,100	87
Quebec.....	Montreal (central).....	530	14
California.....	Los Angeles.....	1,883	46
Do.....	San Francisco (Golden Gate).....	1,054	30
Colorado.....	Denver.....	563	32
Connecticut.....	Bridgeport.....	603	33
Do.....	Hartford.....	807	21
Illinois.....	Chicago (central).....	4,566	51
Do.....	Chicago (Division Street).....	1,504	38
Do.....	Chicago (Sears-Roebuck).....	543	28
Indiana.....	Indianapolis.....	932	26
Kentucky.....	Louisville.....	1,087	41
Maryland.....	Baltimore.....	1,113	34
Massachusetts.....	Boston.....	3,843	52
Do.....	Cambridge.....	607	90
Do.....	Worcester.....	1,037	77
Michigan.....	Detroit (Adams Avenue).....	3,094	40
Minnesota.....	Minneapolis.....	536	32
Nebraska.....	Omaha.....	628	37
New Hampshire.....	Berlin.....	553	40
New Jersey.....	Newark.....	958	32
New York.....	Brooklyn (Bedford branch).....	1,594	50
Do.....	Brooklyn (central).....	1,183	20
Do.....	Buffalo.....	1,001	24
Do.....	New York (Bronx Union branch).....	787	32
Do.....	New York (east side branch).....	828	48
Do.....	New York (Twenty-third Street branch).....	1,614	44
Do.....	New York (west side branch).....	5,659	69
Ohio.....	Cincinnati.....	680	40
Do.....	Cleveland.....	2,265	43
Do.....	Columbus.....	1,017	42
Do.....	Dayton.....	728	24
Do.....	Hamilton.....	558	23
Do.....	Youngstown.....	676	27
Oregon.....	Portland.....	1,172	29
Pennsylvania.....	Philadelphia (central).....	4,843	68
Do.....	Pittsburgh (East Liberty).....	619	53
Washington.....	Seattle.....	1,342	72
Illinois.....	East St. Louis (railroad).....	566	72

TABLE 7.—*Associations reporting day work with 50 or more students.*

A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

State.	Association.	Students.	Expense.	Receipts.
California.....	Los Angeles.....	623	\$23,815	\$34,392
Do.....	San Francisco.....	85	.....	.....
Colorado.....	Denver.....	235	5,948	7,258
Illinois.....	Chicago (central).....	607	11,500	13,840
Do.....	Chicago (Division Street).....	131	.....	.....
Do.....	Chicago (Sears-Roebuck).....	183	2,184	1,525
Maryland.....	Baltimore.....	63	1,087	1,502
Massachusetts.....	Boston.....	1,089	.....	.....
New York.....	Brooklyn (Bedford branch).....	203	33,437	31,192
Do.....	Brooklyn (central).....	133	15,196	9,192
Do.....	Buffalo.....	129	.....	.....
Do.....	New York (Twenty-third Street).....	198	.....	.....
Do.....	New York (west side branch).....	1,831	.....	.....
Ohio.....	Cincinnati.....	149	1,114	234
Do.....	Cleveland.....	296	.....	.....
Pennsylvania.....	Philadelphia.....	297	6,054	5,532
Washington.....	North Yakima.....	62	236	302
Do.....	Seattle.....	332	15,542	10,054
Do.....	Spokane.....	90	.....	.....
Illinois.....	Chicago, Wabash Avenue (colored).....	53	2,600	1,346

TABLE 7.—*Associations reporting day work with 50 or more students—Continued.*
B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

State.	Association.	Students.	Expense.	Recpt.
Quebec.	Montreal (central).	62	.....	.....
Alabama.	Birmingham (Acipco).	90	\$300	.....
California.	Los Angeles.	1,075	28,300	\$4,50
Do.	San Francisco (Golden Gate).	189	5,754	1,68
Colorado.	Denver.	371	6,910	1,98
Connecticut.	Hartford.	54	150	12
Hawaii.	Honolulu.	72	3,200	1,87
Illinois.	Chicago (central).	506	9,364	10,78
Do.	Chicago (Division Street).	146	4,203	1,38
Maryland.	Baltimore.	280	1,627	1,00
Massachusetts.	Boston.	939	82,794	\$1,08
Do.	Worcester.	100	1,971	1,70
Michigan.	Detroit (Adams Avenue).	636	7,000	21,00
Minnesota.	Minneapolis.	67	2,357	92
Missouri.	St. Louis.	142	11,185	9,38
New York.	Brooklyn (central).	256	.....	.....
Do.	Brooklyn (eastern district).	51	280	20
Do.	New York (east side).	322	8,000	3,20
Do.	New York (Twenty-third Street).	151	6,889	4,88
Ohio.	New York (west side).	2,546	.....	.....
Do.	Cincinnati.	124	950	30
Do.	Cleveland.	287	.....	.....
Do.	Columbus.	70	.....	5,00
Oregon.	Portland.	497	29,145	22,88
Pennsylvania.	Philadelphia (central).	224	5,181	3,81
Illinois.	Chicago (Wabash Avenue).	72	.....	.....

TABLE 8.—*Boys' summer schools, 1916, with 25 or more students.*
A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

State.	Association.	Students.	State.	Association.	Students.
New Brunswick.	St. John.	47	Missouri.	St. Joseph.	18
Colorado.	Denver.	59	New Hampshire.	Manchester.	11
Connecticut.	Hartford.	84	New Jersey.	Orange.	10
Dist. Columbia.	Washington.	68	Do.	Perth Amboy.	7
Hawaii.	Honolulu.	53	New York.	Brooklyn (Bedford br.).	3
Do.	Honolulu (Japanese department).	25	Do.	Brooklyn (central br.).	3
Illinois.	Chicago (central br.).	48	Do.	New York (Bronx Union br.).	6
Do.	Chicago (Division St.).	62	Do.	New York (west side br.).	6
Do.	Chicago (Sears-Roebuck).	133	Ohio.	Columbus.	3
Do.	Chicago (Wilson Ave.).	65	Do.	Hamilton.	2
Do.	Peoria.	25	Do.	Youngstown.	2
Maryland.	Baltimore.	25	Pennsylvania.	Philadelphia.	25
Massachusetts.	Boston.	38	Do.	Scranton.	2
Do.	Everett.	35	Rhode Island.	Providence.	2
Do.	Lowell.	29	Tennessee.	Nashville.	4
Do.	Malden.	25	Texas.	Dallas.	2
Do.	Melrose.	39	Washington.	North Yakima.	2
Do.	Somerville.	63	Do.	Seattle.	12
Do.	Springfield.	99			

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

State.	Association.	Students.	State.	Association.	Students.
New Brunswick.	St. John.	45	New Jersey.	Orange.	20
California.	Fresno.	45	New York.	Brooklyn (Bedford br.).	14
Do.	Los Angeles.	55	Do.	Brooklyn (central).	20
Colorado.	Denver.	48	Do.	Buffalo.	11
Connecticut.	Hartford.	41	Do.	New York (Bronx Union br.).	2
Dist. Columbia.	Washington.	65	Do.	New York (west side br.).	5
Hawaii.	Honolulu.	37	Ohio.	Cleveland.	2
Illinois.	Chicago (Division St.).	60	Do.	Hamilton.	2
Do.	Chicago (central).	60	Do.	Youngstown.	2
Do.	Chicago (Sears-Roebuck).	80	Pennsylvania.	Philadelphia (central).	2
Do.	Chicago (Wilson Ave.).	65	Do.	Scranton.	2
Do.	Peoria.	26	Rhode Island.	Providence.	2
Massachusetts.	Boston.	49	South Carolina.	Spartanburg.	2
Do.	Everett.	35	Texas.	Dallas.	2
Do.	Somerville.	14	Washington.	Seattle.	2
Do.	Springfield.	169			
Nebraska.	Omaha.	43			

¹ Boys and girls.

TABLE 9.—*Boys' departments, with 100 or more boys in class work.*

A. FOR PERIOD JULY 1, 1916, TO JUNE 30, 1917.

State.	Association.	Boys.	State.	Association.	Boys.
Ontario.	Toronto (Broadview br.)	684	Missouri.	St. Joseph.	132
Quebec.	Montreal (central).	305	New York.	Brooklyn (Bedford br.).	102
Colorado.	Denver.	153	Do.	Brooklyn (central).	263
Connecticut.	Bridgeport.	163	Do.	New York (Bronx ion br.).	149
Do.	Hartford.	276	Do.	New York (West side br.).	196
Hawaii.	Honolulu.	149	North Carolina.	Charlotte.	167
Illinois.	Chicago (central).	550	Pennsylvania.	Philadelphia (central).	1,774
Do.	Chicago (Division St.).	193	Do.	Scranton.	100
Indiana.	Chicago (Sears-Roebuck).	347	Washington.	Seattle.	247
Kentucky.	Indianapolis.	327	Virginia.	Newport News (colored)	123
Maryland.	Louisville.	161			
Michigan.	Baltimore.	226			
	Detroit (Adams Ave.).	269			

B. FOR PERIOD JULY 1, 1917, TO JUNE 30, 1918.

State.	Association.	Boys.	State.	Association.	Boys.
Ontario.	Toronto (Broadview br.)	2,050	New York.	Brooklyn (Bedford br.).	158
Quebec.	Montreal.	280	Do.	Brooklyn (central br.).	316
California.	Los Angeles.	400	Do.	New York (Bronx Union br.).	135
Colorado.	Denver.	155	Do.	New York (east side br.).	127
Connecticut.	Hartford.	153	Do.	New York (west side br.).	147
Dist. Columbia.	Washington.	223	North Carolina.	Charlotte.	147
Illinois.	Chicago (central).	638	Ohio.	Hamilton.	114
Do.	Chicago (Division St.).	480	Do.	Youngstown.	211
Do.	Chicago (Sears-Roebuck).	195	Pennsylvania.	Portland.	270
Indiana.	Indianapolis.	420	Do.	Philadelphia (central).	1,532
Kentucky.	Louisville.	168	Do.	Pittston.	503
Maine.	Portland.	112	Do.	Pottstown.	150
Maryland.	Baltimore.	171	Do.	Williamsport.	896
Massachusetts.	Boston.	228	South Carolina.	Charleston.	179
Do.	Somerville.	114	Texas.	Dallas.	117
Michigan.	Detroit (Adams Ave.).	147			
Nebraska.	Omaha.	125			
New Jersey.	Camden.	105			

TABLE 10.—*Development of educational work from 1893, when this department of the international committee was organized.*

	1893	1901	1909	1914
Number of lectures and talks.	1,900	3,041	4,996	13,414
Educational club members.	3,250	4,618	19,550	25,405
Number in class lecture series courses.		750	3,907	12,335
Number of associations with educational secretaries.	1	21	60	82
Number of paid teachers.	415	901	2,443	2,858
Total different students, day and evening.	12,000	26,906	46,948	84,577
Employed boys in classes.		1,326	7,521	12,886
Tuition receipts.	\$2,000	\$45,000	\$355,595	\$785,274
Income from endowment.	\$2,500	\$4,910	\$9,687	\$13,424
Number international certificates won.		1,532	1,251	1,901
Students in association day courses.		560	3,060	8,213
Students in boys' summer schools.		75	1,214	2,289
Students outside building.		360	5,130	19,091
Educational men in Bible study.				2,607
Number of chapel assemblies.				1,628
Total expense of all features.	\$72,000	\$193,000	\$570,070	\$1,086,763

	1915	1916	1917	1918
Number of lectures and talks.	14,819	16,500	14,375	11,931
Educational club members.	26,700	29,197	25,716	27,411
Number in class lecture series courses.	4,542	5,930	9,486	5,176
Number of associations with educational secretaries.	84	84	90	87
Number of paid teachers.	2,592	2,645	2,452	2,203
Total different students, day and evening.	83,771	82,358	83,121	81,899
Employed boys in classes.	12,445	11,724	12,484	15,615
Tuition receipts.	\$614,024	\$640,912	\$1,139,799	\$823,490
Income from endowment.	\$12,766	\$13,744	\$32,293	\$10,531
Number international certificates won.	2,240	2,170	1,060	918
Students in association day courses.	8,031	7,263	7,279	9,632
Students in boys' summer schools.	2,823	3,321	2,350	2,263
Students outside building.	22,653	15,770	10,483	9,424
Educational men in Bible study.	3,389	2,872	13,403	5,932
Number of chapel assemblies.	2,564	1,768	10,326	7,677
Total expense of all features.	\$1,070,900	\$1,143,086	\$1,231,340	\$1,433,857

TABLE 11.—*Boys' educational roll of honor.*

A. DURING PERIOD JULY 1, 1916, TO JUNE 30, 1917.

Associations winning the largest actual number of certificates among boy members.	Certificates.	Associations in which the largest per cent of boy members won certificates.	Per cent.
1. Reading, Pa.....	60	1. Mobile, Ala.....	23.6
2. Cincinnati, Ohio.....	33	2. Reading, Pa.....	19.3
3. Detroit, Mich.....	31	3. Cincinnati, Ohio.....	12.5
4. Mobile, Ala.....	26	4. Springfield, Mo.....	10.4
5. Wilmington, Del.....	24	5. Wilmington, Del.....	7.3
6. Hamilton, Ohio.....	16	6. Topeka, Kans.....	4.6
7. Springfield, Mo.....	15	7. Detroit, Mich.....	2.9
8. Topeka, Kans.....	15	8. Hamilton, Ohio.....	2.8
9. St. Paul, Minn.....	12	9. St. Paul, Minn.....	2.5
10. Canton, Ohio.....	11	10. Canton, Ohio.....	1.2

B. BOYS' EDUCATIONAL ROLL OF HONOR, 1918.

Associations winning the largest actual number of certificates among boy members.	Certificates.	Associations in which the largest per cent of boy members won certificates.	Per cent.
1. Detroit, Mich.....	52	1. Mobile, Ala.....	15.5
2. Mobile, Ala.....	24	2. Burlington, Vt.....	5.9
3. New York (west side), N. Y.....	19	3. Easton, Pa.....	4.9
4. St. Paul, Minn.....	15	4. Detroit, Mich.....	4.4
5. Scranton, Pa.....	13	5. Galt, Ontario, Canada.....	3.7
6. Pittsburgh, Pa.....	11	6. Scranton, Pa.....	3.7
7. Galt, Ontario, Canada.....	11	7. St. Paul, Minn.....	2.8
8. Burlington, Vt.....	9	8. New York (west side), N. Y.....	2.8
9. Easton, Pa.....	9	9. Pittsburgh, Pa.....	2.6
10. Camden, N. J.....	9	10. Camden, N. J.....	1.3

TABLE 12.—*Report of library service for American Expeditionary Forces in the United Kingdom from Aug. 1, 1917, to Sept. 30, 1918.*

Distributed:

Circulating books.....	37,229
Reference books.....	1,160
Technical books.....	1,830
Text books.....	4,332
Magazines and newspapers	3,000,000
Maps.....	1,294
Pictures.....	1,112
Books for resale.....	595
Enrollment cards.....	6,100
"Association Men".....	2,500
"American Home News".....	114,500
"Red Triangle Overseas".....	2,000
"Stars and Stripes".....	25,864
"Eaglet".....	500
Pamphlets.....	550,000
Military propaganda pamphlets.....	30,510
Books have been donated to us.....	15,075
Value of same.....	£621

PUBLICATIONS.

Printed:	
Clark's Hun's Ally.....	100,000
Kipling's To the Fighting Americans.....	50,000
Hay's Welcome to England	100,000
Y. M. C. A. Handbook.....	1,000
Exner's Friend or Enemy.....	50,000
Armstrong's Nurse and Knight.....	50,000
France, dispatched:	
Books of a general character.....	140,718
Testaments.....	128,500
Textbooks.....	68,795
Songs.....	36,886
Magazines.....	63,000
Bibles.....	80,000
Pamphlets.....	792,738
Reference books.....	123,800
Maps.....	111,000

TABLE 12.—*Report of library service for American Expeditionary Forces in the United Kingdom from Aug. 1, 1917, to Sept. 30, 1918—Continued.*

PUBLICATIONS—continued.		PUBLICATIONS—continued.	
France, dispatched—Continued.		Gibraltar, dispatched—Continued.	
Books donated Paris.....	40,000	Y. M. C. A. song books.....	4
Value of same.....	£4,000	Song sheets.....	200
Social department (United Kingdom):		Abridged song books.....	100
Songs.....	2,266	War rolls.....	250
101 Best Songs.....	8,063	Russia, dispatched:	
Service Song Books (with music).....	18,947	General books.....	9,936
Volumes of Y. M. C. A. songs	239	Reference books.....	1,200
Song sheets.....	8,872	Technical books.....	72
Abridged song books.....	5,888	Textbooks.....	10,445
Books of music.....	3,565	Magazines and newspapers..	19,782
Religious work department (United Kingdom), dispatched:		Maps.....	25
War roll cards.....	14,769	Pictures.....	100
Pamphlets.....	397,011	Pamphlets.....	11,500
Testaments.....	26,411	Testaments.....	600
Bibles.....	3,915	Bibles.....	350
Books.....	3,364	Songs.....	200
Gibraltar, dispatched:		101 Best Songs.....	500
General books.....	880	Song service books.....	2,000
Reference books.....	25	Y. M. C. A. song books.....	24
Technical books.....	25	Song sheets.....	500
Magazines and newspapers..	4,160	Abridged song books.....	500
Textbooks.....	25	Switzerland (P. O. W.), dispatched:	
Maps.....	12	General books.....	5,480
Pictures.....	20	Testaments.....	5,000
Pamphlets.....	5,000	Bibles.....	1,100
Testaments.....	1,500	Reference books.....	118
Bibles.....	150	Maps.....	12
Songs.....	25	Technical books.....	25
101 Best Songs.....	250	Textbooks.....	1,489
Song Service books.....	150	Pamphlets.....	1,500

FURNISHED BY AMERICAN LIBRARY ASSOCIATION FOR AMERICAN EXPEDITIONARY FORCES.

Italy, dispatched: ¹	
Cases of books received from United States.....	1,361
Books donated (contained in above).....	99,536
Value of same.....	£9,896
Carriage from docks to warehouse.....	£147
Cases sent to France (59,220 books).....	846
Cases sent to American Red Cross (3,500 books).....	50
Cases sent to Russia (1,680 books).....	24

¹ First order was received for 12 books.

TABLE 13.—*Summary of enrollment of students in the American Expeditionary Forces in England.¹*

English.....	25	Trigonometry.....	95
French.....	380	Mechanical drawing.....	22
Spanish.....	13	Agriculture.....	5
History.....	141	Chemistry.....	30
Economics.....	38	Navigation.....	1
Geography.....	20	Motors.....	69
Memory training.....	34		
Arithmetic.....	59	Total.....	926
Algebra.....	54		

Enrollments of Americans in Canadian Khaki College, London, to Nov. 18, 1918 (cooperative arrangement).

English.....	1	Salesmanship.....	30
Spanish.....	5	Penmanship.....	1
Economics.....	2	Shorthand.....	1
Commercial arithmetic.....	1	Typewriting.....	2
Calculus.....	1	Business correspondence.....	4
Surveying.....	1	Business practice.....	2
Petrol engines.....	4	Secretarial practice.....	1
Electricity and magnetism.....	3	Commercial law.....	3
Chemistry.....	2	Salesmanship.....	5
Electricity.....	36	Dairying.....	2
Penmanship.....	2	Live stock.....	2
Shorthand.....	18	Field husbandry.....	2
Typewriting.....	2		
Bookkeeping.....	1	Total.....	134

TABLE 14.—*Class work for one week in October, 1918, American Expeditionary Forces in the United Kingdom.*

Academic subjects:

Classes in—

English.....	8
History.....	8
French.....	34
Spanish.....	4
Reading.....	1

Commercial subjects:

Classes in—

Salesmanship.....	3
Bookkeeping.....	2
Typewriting.....	3
Stenography.....	2
Arithmetic.....	4
Penmanship.....	1

Technical subjects:

Classes in—

Algebra.....	6
Geometry.....	3
Trigonometry.....	4
Physics.....	2
Mechanical drawing.....	2
Radio.....	2
Chemistry.....	1
Electricity.....	4
Aeronautics.....	2
Gas engines.....	4
Navigation.....	5
Marine engineering.....	2
Mechanical engineering.....	2
Armament.....	1
Ordnance.....	1

These figures do not include about 150 beginners in a correspondence course in the geography of Europe, it being the policy to count as enrolled only those who have finished at least three lessons.

¹ During the month of October more than 400 men attended the "drop-in" one-session class in French at Eagle Hut. Of these 176 signed a card expressing their desire to continue the study of French in their camps.

CHAPTER XXIII.

EDUCATIONAL WORK OF THE BOY SCOUTS.

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CONTENTS.—The scout movement.—Democratic character of the movement.—Nonsectarian and non-partisan.—Scout leaders.—The plastic age.—Growth and extent of the movement.—Scouting and education.—The scout program.—Scouting and the public schools.—Scouting courses in colleges and universities.—The department of education.—Scout handbooks, etc.—The library department.—Scouting and the movies.—Scouting and war service.—Scouting and juvenile delinquency.—Scouting and soldier making.

THE SCOUT MOVEMENT.

The scout movement makes no claim to supersede the work of home or school or church. On the contrary, it aims to supplement these institutions and to cooperate with them in every practicable way in a sane, all-around development of American youth. Scouting has been described as the process of making real boys into real men by a real program that works. This program is adapted to the boy's leisure hours, but its principles are the kind that permeate every phase of his life, becoming part and parcel of himself. Character development is the keynote of scouting. By precept and practice it instills ideals of courage and honor, cheerfulness and kindness, loyalty and obedience, cleanliness of mind and body, faithfulness to duty, devotion to country, reverence to God. By his oath the scout pledges himself to "help other people at all times," to keep himself "physically strong, mentally awake, morally straight."

He is a better son and brother, a more alert student, a heartier adherent to the church of his affiliation because he is also a good scout. Later on he will be a more responsible and valuable American citizen for his scout training now.

DEMOCRATIC CHARACTER OF THE MOVEMENT.

Scouting knows no bounds of class, or creed, or race. It speaks the universal language of world boyhood. It is the great melting pot of American youth. It aims not to run every boy into one groove, but to help every boy to develop into the fullest manhood of which he is capable, an individual in the truest sense, with recognized responsibility to himself and society.

NONSECTARIAN AND NONPARTISAN.

The scout movement is nonsectarian and attempts no formal religious instruction. Nevertheless, its ideals are in substantial accord with those of the modern church, in their emphasis upon the

service of God, the brotherhood of man. Though having no sectarian bias, the movement numbered among its scoutmasters in 1917, 1,394 Sunday school teachers, 964 Y. M. C. A. workers, and 103 ministers; 7,319 troops were on record in 1917 as organized under the jurisdiction of religious institutions. Thus the cordial mutual relation between the church and the Boy Scouts of America is attested.

From the beginning the Boy Scouts of America was conceived and has since been developed on the broadest possible lines. The movement has kept itself free from all party or political predilections, though holding itself ready at all times to cooperate cheerfully with all institutions and causes dedicated to community and national welfare. Its sponsors are men representing the widest variety of interests, viewpoints, and professions.

SCOUT LEADERS.

Scoutmasters and their assistants are chosen with great care, for the movement recognizes the importance of the quality of leadership offered, and that the success or failure of the scout program in a given troop must depend to a considerable degree upon this leadership.

A scoutmaster must be at least 21 years of age, of proved moral worth and patriotism. He must be an American citizen (or must have taken legal steps to become such) and must be willing to subscribe to the Scout Oath and Law. He must have some experience in boy work and is preferably an "outdoor man," with a fund of nature lore and campcraft at his disposal. Above all, he must be a man of strong personality, with power to command the respect and liking of his boys. He must be the kind of man who practices good scouting as well as preaches it.

THE PLASTIC AGE.

Twelve years is the minimum age requirement for scouts. Fifteen and a half is the average scout age. Boys of 18 or over are encouraged to stay in the movement as assistant scoutmasters, or as associate or veteran scouts. The fact remains, however, that the boy in the early teens is the one with whom the scoutmaster has largely to deal. This means that the boy is in the scoutmaster's hands, in very close personal relationship at the most impressionable and plastic period of his development, when he is most susceptible to influences, good and bad, when the imagination is most open to appeal, when hero worship is the very breath of life.

GROWTH AND EXTENT OF THE MOVEMENT.

Scouting was started in the United States in 1910. In the eight years since a far-sighted group of men met to consider ways and means by which the scout movement could be adapted to meet the needs of American boys progress of the movement has been little short of phenomenal.

There is to-day not a single State, and scarcely a county, in this country in which the movement is not firmly established. In crowded cities, in the small village, in isolated rural communities, scouting is solving the ever present and ever complex boy problem, and solving it effectively. On September 6, 1918, 343,248 scouts were registered at national headquarters, an increase of over 82,000 since the 1st of January of the same year and of nearly 100,000 since the same date of the previous year.

War time made heavy inroads on scout leadership, but even so, in September, 1918, there were 89,640 adult scout leaders on record, which means that over 89,000 American men believe sufficiently in scouting and the scout program to give it their personal sponsorship, time, interest, and leadership.

SCOUTING AS EDUCATION.

Dean Russell, of Columbia University, claims that the movement is the "most significant educational contribution of our time," with a "program that appeals to a boy's instincts and a method adapted to a boy's nature."

The scout method is the laboratory method. It is learning by doing. It gives the boy a host of interesting worth-while things to do at the time when he is most restless and pines most for activity. Moreover, it gives him something he likes to do. It is learning made attractive. It works along the line of normal boy interests and activities. It interprets and gives life and meaning to what might otherwise be dry-as-dust book stuff. It is an eye opener in a hundred directions.

Scouting is literally education. It does not aim to plaster something on from outside. It draws out and cultivates what is already latent within the boy. It provides an outlet for his exuberant energy. It gives direction to his random impulses and crude abilities. It shows him the why and how of things. It makes use of his love of adventure, his chivalry, his passion for outdoors. It teaches him to use his eyes and ears and hands and feet to the best advantage. Above all, it teaches him to use his head.

A scout learns to take care of himself and the other fellow. He knows what to do in case of accident and how to prevent accident. He knows how to build fires in the open, even in wet weather and without matches. He knows how to pitch a tent and how to make himself comfortable under the open sky. He knows how to find his way by night or day in the woods without a compass. He understands fire fighting and fire prevention. He knows the laws of health and obeys them, follows "safety-first" rules himself, and looks after the other fellow who doesn't. He practices signaling and craftsmanship. He studies nature, animate and inanimate. He ties knots that hold. His fires burn. His stews are edible. He learns to do things not

"somewhere near right" but just right. The emphasis is on thoroughness, efficiency, out-and-out trained skill. The scout is deft, quick-witted, level-headed, resourceful. In short, he is "prepared."

There are no "don'ts" in scouting. It is all "do." Perhaps that is the secret, at least one of the secrets, of its success as an educational method. And all the while he is having a real boy good time, hardly aware he is being taught at all. Scouting is recreation plus education. As a school principal once said, "Scouting has done what no scheme has ever done before—made the boy want to learn."

THE SCOUT PROGRAM.

ITS ADAPTABILITY.

One of the chief excellencies of the scout program is its adaptability. It was not devised for a particular type of boy—a city boy, a country boy, a boy with a full purse, a boy with empty pockets, a boy with wise parents, a boy whose home is the street, or the reformatory—but all kinds of boy, any kind of boy, the scout program fits, if rightly applied by a true leader and lover of boys.

ITS PROGRESSIVE QUALITY.

The scout program is progressive and provides its own rewards and incentives for advancement. The scout is always trying to beat his own record. There is no standing still. There is always something just ahead to conquer and achieve. Having passed the tenderfoot stages, the boy goes on to master the second-class scout requirements and after these to the more complicated and difficult attainments of the first-class scout.

MERIT BADGE POSSIBILITIES.

The first-class scout has by no means reached the summits of scouting. The Merit Badge possibilities for further development are practically limitless. They are the electives of scouting, so to speak. They offer 58 different subjects for intensive study, covering such widely diversified boy interests as photography, beekeeping, taxidermy, signaling, astronomy, sculpture. The plan of the Merit Badges is not meant to develop specialists, but to provide an opportunity for every boy to follow up his hobbies and try out his natural gifts and aptitudes. There is something here for boys of every bent of mind. If along the line of any of these subjects the boy finds his destined vocation so much the better. What is perhaps more likely to happen is that the Merit Badge program will have opened the boy's eyes to an almost endless variety of interesting possibilities for side studies and avocations. Merit Badges studies are open gateways to wide fields, which the scout may explore at will.

Merit Badge awards (comparative table).

For—	1917	1916	1915	1914	1913	1912	1911
Swimming	1,898	1,343	903	610	441	177	10
Personal health	1,871	1,158	871	910	608	236	15
Public health	1,831	1,080	836	759	576	225	9
Piremanship	1,735	1,092	777	660	202	85	—
First aid	1,707	1,018	668	470	165	69	2
Craftamanship	1,236	688	596	474	278	75	1
Carpentry	1,119	649	440	221	76	25	—
First aid to animals	1,001	554	333	364	102	31	—
Pioneering	996	488	359	202	81	23	—
Camping	919	392	374	307	161	52	1
Safety first	908	151	—	—	—	—	—
Handicraft	872	426	443	449	135	53	1
Pathfinding	815	518	355	260	121	43	1
Cooking	811	480	418	361	163	44	2
Life-saving	792	532	379	359	234	72	3
Cycling	755	392	394	329	166	55	6
Civics	735	390	350	307	179	50	3
Scholarship	689	398	333	197	10	—	—
Athletics	617	297	246	125	54	38	—
Electricity	599	259	226	126	58	23	1
Signaling	487	271	229	131	93	22	3
Bird study	434	231	163	36	4	2	—
Machinery	326	215	177	188	73	26	—
Physical development	311	193	184	5	—	—	—
Automobiling	299	124	108	94	47	16	—
Gardening	239	171	141	227	126	56	—
Interpreting	228	130	141	112	52	27	3
Music	188	129	126	118	58	27	2
Bugling	179	116	83	87	155	13	—
Poultry farming	173	89	68	94	61	23	2
Masonry	168	75	60	102	19	14	—
Conservation	164	139	96	100	31	15	1
Marksmanship	158	106	88	75	34	12	—
Chemistry	153	68	58	128	62	23	2
Forestry	153	102	105	121	151	21	—
Art	122	75	93	156	74	31	1
Painting	113	49	66	100	45	16	—
Horsemanship	105	42	37	83	50	27	—
Blacksmithing	92	50	41	23	6	—	—
Business	92	71	102	156	82	26	—
Photography	76	14	28	46	15	9	—
Surveying	72	38	51	90	54	15	—
Mining	68	27	29	26	26	6	—
Printing	62	33	26	33	24	5	—
Agriculture	62	31	30	7	5	6	—
Architecture	38	20	21	65	21	7	—
Dairying	38	8	15	21	9	1	—
Astronomy	36	25	32	186	96	38	5
Plumbing	33	12	29	75	8	5	—
Seamanship	28	26	37	57	21	11	—
Aviation	23	18	12	16	9	4	—
Bee farming	19	19	39	214	62	25	—
Leather working	19	17	14	55	15	—	—
Stalking	15	5	4	3	4	1	—
Angling	15	—	8	3	1	—	—
Taxidermy	10	8	7	2	7	1	—
Sculpture	6	2	10	36	10	1	—
Archery	3	—	1	2	—	—	—
Invention	—	—	1	8	1	—	—
Total	26,728	15,050	11,976	10,499	5,521	1,906	83

The table shows the increase of Merit Badges awarded during six years of scouting.

It is interesting to note that after swimming, a larger number of scouts qualified for Merit Badges in personal and public health than in any other subject offered. The requirements in these two subjects are here given as an illustration of the thoroughness and scope of the work demanded.

To obtain a Merit Badge for personal health, a scout must:

1. Write a statement on the care of the teeth, and show that his teeth are in good condition as a result of proper care.
2. State a principle to govern in eating; and state in the order of their importance five rules to govern the care of his health.

3. Present satisfactory evidence that he has not been absent from school or work for a period of at least six months as a result of his failure to observe these rules.
4. Tell the difference in effect of a cold and a hot bath.
5. Describe the effects of alcohol and tobacco on the growing boy.
6. Tell how to care for the feet on a march.
7. Describe a good healthful game and state its merits.
8. Describe the effects of walking as an exercise.
9. Tell the dangers of specialization and overtraining in the various forms of athletics, and the advantages of an all-round development.

To obtain a Merit Badge for public health, a scout must:

1. State the chief causes and modes of transmission of each of the following diseases: Tuberculosis, typhoid, malaria.
2. Draw a diagram showing how the house fly carries disease.
3. Tell what should be done to a house which has been occupied by a person who has had a contagious disease.
4. Describe the method used in his community in disposing of garbage.
5. Tell how a city should protect its milk, meat, and exposed foods. State what are the laws in his community covering this subject, and to what extent they are being enforced.
6. Tell how to plan the sanitary care of a camp.
7. State the reason why school children should undergo a medical examination.
8. Tell how he may cooperate with the health authorities in preventing disease.
9. Produce satisfactory evidence that he has rendered service in some effort recommended by the public health authorities in the interest of public health.

When one considers that in one year nearly 2,000 scouts qualified for Merit Badges in each of these important subjects, the cumulative effect upon the general health, hygiene, and sanitation of the Nation at large, can hardly be overestimated. This is but one of many phases of scouting education but a vastly significant one.

It is noticeable that firemanship and first aid follow next in popularity, both of them subjects the intelligent study and practice of which are of incalculable service in the prevention of and coping with emergencies, education of the most practical and invaluable sort.

ADVANCED SCOUTING.

A first-class scout who passes, to the satisfaction of the local Court of Honor, Merit Badge tests in first aid, physical development or athletics, personal health, public health and life saving becomes a life scout. A life scout who passes five additional Merit Badge tests becomes a star scout. A first-class scout who passes the tests in first aid, life saving, personal health, public health, cooking, camping, civics, bird study, pathfinding, pioneering, athletics or physical development with 10 additional tests becomes an eagle scout.

These requirements are sufficiently rigorous and demand a considerable amount of specialized training as well as perseverance, determination, and enthusiasm. That boys count the gains worth the pains the facts prove. In 1917, 529 scouts qualified as life scouts, 508 as star scouts, and 219 as eagle scouts.

SCOUTING AND THE PUBLIC SCHOOLS.

In 1917, 2,237 troops of Boy Scouts were organized in connection with schools, and 1,557 scoutmasters were also school-teachers, statistics that show the entire compatibility of scouting with other educational interests.

All over the country schools are following Dr. Eliot's hint that the "Boy Scout movement is setting an example that our whole public-school system ought to follow."

In the high school of Austin, Tex., the Boy Scouts' Handbook is used as a textbook, and scouting may be credited toward graduation, as per specific and detailed conditions set forth in the official course of study. The State University of Texas offers annually three scholarships to Boy Scouts who have attained the rank of eagle scout. This is a type of close correlation of scouting with the public-school system, which is on the increase, and which is most desirable from the standpoint both of the school and of the Boy Scout movement.

Toledo, Ohio, and Chicago, Ill., are among the cities wherein boards of education have by formal resolution, indorsed scouting and recommended its incorporation into the school program.

In Hartford, Conn., the problem of coordination between the scout movement and the public schools was complicated by the system under which the schools are operated. This system places a committee of three in charge of each school, so that besides winning the approval of the board of education, the movement had to meet and overcome a different set of objections or prejudices with each school, and yet scouting is established in 71 per cent of the public schools in Hartford.

Portland, Oreg., is another city in which scouting is strongly entrenched as an extra school program, the troops meeting in the school buildings, without charge by the board of education for heat, light or janitor service. School swimming tanks have been turned over to the scouts certain evenings of the week, as a result of which 200 scouts were taught to swim. Scouts have voluntarily taken charge of playgrounds, have kept order in the halls of the schools, taken charge of fire drills, and of the raising and lowering of flags on school buildings, have given supervision in lavatories, and made themselves generally helpful. On the other hand, the local Boy Scout organization has actively cooperated with the schools to raise the standard of scholarship, by giving a gold and enameled button to each scout who attained an average of 85 per cent in school studies, or to each scout who improved upon his previous month's record, no matter how poor the record. This button could only be retained from month to month, by meeting the conditions named above. If at the end of the school year it was still in the scout's possession he became the permanent owner of the emblem.

The fact that but one button was forfeited indicates the stimulative value of this cooperation.

The limitations of this report preclude a more extended statement of this development of scouting, but the geographical distribution of the cases cited suggests that the incorporation of scouting in the public schools is not limited to a particular section, but is a very general development.

The following points characterize most troops organized in connection with public schools:

1. Scouting is voluntary on the part of the scout leader and the boy.
2. Scouting is a supplementary activity to the regular school program, the church, and the home.
3. The program of scouting is so planned by the scoutmaster as to cover as much of the boy's leisure time as possible, especially during the period when the scout is acting under the direction of the leader, or when he is practicing scouting on his own initiative.
4. The play spirit should characterize scouting.
5. The formalism of school programs should not be imposed upon scouting. In its flexibility, freedom of choice, and adaptability to individual needs, preferences, and abilities rests much of the appeal of the scouting program.
6. Scouting comprises a set of activities in which the boy is anxious to participate, and which have behind them the principles of the Scout Oath and Law.
7. In the leadership of the troop, character building as the end of scouting must be ever kept in mind.

SCOUTING COURSES IN COLLEGES AND UNIVERSITIES.

Courses in scoutcraft and recreational leadership are offered in many universities and colleges, including the Universities of California, Virginia, Wisconsin, Boston, Columbia, and New York, Reed and Rutgers Colleges and many other schools. These courses are especially designed for the training of scout leaders and others interested in the movement and are planned in cooperation with the National Headquarters Department of Education. They are particularly significant in that they prove that the scout program and method are regarded by authorities as an educational asset.

Boston University offers two \$500 scholarships (1918-19) to students whose major interest is the field of leisure time and vocational occupations for boys of scout age.

THE DEPARTMENT OF EDUCATION.

Since 1916 the Boy Scouts of America has maintained a department of education whose province it is to promote the interests of scouting in schools and universities, to offer leadership and guidance to scout officials in arranging for scout training courses under local councils, to hold conferences throughout the country in matters connected with the educational aspects of scouting. The establishment of this department has helped greatly to rouse popular interest in the movement and to interpret scouting as a community asset.

SCOUT HANDBOOKS, ORGANS, AND OTHER LITERATURE.**THE BOY'S HANDBOOK.**

Since the founding of the scout movement the Boy Scout Handbook has been increasingly in demand. It is already in its seventeenth printing. Two editions of 100,000 each were required in 1917. It is said to be the most popular boys' book in the world and we are told it is not only boys who find its pages worth while, for it is in great demand among the soldiers of our new army, who are given preliminary training similar to that required of scouts. The handbook is the official interpretation of scouting.

SCOUTING AND BOYS' LIFE.

Scouting, the official organ of the movement for scout officials, and Boys' Life, the official scout magazine for boys, also play an important part in interpreting and disseminating scouting.

Boys' Life has an extensive circulation and aims to give boys inspiring and entertaining fiction of the right sort, as well as biography, current history, nature lore, and other worth-while matter attractively presented. A new department conducted by the chief scout executive, "What Every Scout Wants to Know," deals particularly with the war program of the Boy Scouts of America.

Besides these regular publications the editorial, educational, and publicity departments are constantly issuing new pamphlets and articles interpreting the scout movement from educational and other points of view. The war work of the Boy Scouts of America has been so extensive this last year that it has called for a whole set of literature by itself, as well as taking a large proportion of space in Boys' Life and Scouting.

THE LIBRARY DEPARTMENT.

No survey of the educational work attempted by the Boy Scouts of America would be complete without reference to the library department, which is performing an important function in giving leadership to schools and libraries, by making available lists of really worth while boys' books and helping to weed out the cheap and unwholesome so-called "literature" which falls into youthful and undiscriminating hands and sows evil seed.

Every boy's library, the selected list of boys' books which are published in Scout Edition under the supervision of a group of our country's leading librarians, continues in popularity with the boys themselves and has met with so much approbation from libraries that the department is greatly encouraged as to the value of what it is endeavoring to accomplish in giving boys the right sort of reading matter.

SCOUTING AND THE MOVIES.

Another phase of the work of the library department more recently developed is its service as literary adviser to a motion-picture company. As a result of this collaboration a score or more of films have been put into circulation, notably the "Knights of the Square Table," by Chief Sea Scout James A. Wilder, also of Pine Tree fame, and "The Star-Spangled Banner" and the "Unbeliever" (*The Three Things*), both by Mary Raymond Shipman Andrews. All three of these plays are inspiring, educational, and patriotic, tending to spread ideals of the highest type, as well as containing the human element and a wealth of laughter and tears.

SCOUTING AND WAR SERVICE.

When our country entered the world war the full strength of the Boy Scouts of America was immediately made available "as a potential asset to the country for cooperative effort." The results even exceeded the high expectations of those who had abundant faith in the efficacy of the movement as a community and national factor. With ever-increasing calls for service the Boy Scouts of America have met every demand with credit to themselves and the organization and have come to be recognized as an important adjunct to the national program of war activities.

Immediately upon our entrance into the war a scout coast-guard service was organized and made available for use by the Navy Department should occasion warrant. Important work was also done in locating wireless outfits and rendering other services, details of which may not yet be given, in cooperation with the Naval Intelligence Bureau.

Under the direction and at the invitation of the War Department various services have been rendered. A nation-wide canvass of standing black walnut timber was conducted by scouts for the benefit, respectively, of the Ordnance Department and Bureau of Aircraft Production in the manufacture of gunstocks and propellers. The timber was reported to the Forest Service, which tabulated the results of the census and made it available for the needs of the War Department.

In cooperation with the American Red Cross and under the direction of the Gas Defense Division of the Chemical Warfare Service effective work was done by scouts in collecting fruit pits and nuts for Government use in manufacturing gas masks. Hundreds of tons of the material were collected and in many towns scouts had entire charge of the work, collecting, bagging, checking up, and shipping.

Working under the Committee on Public Information and at the direct request of the President, Boy Scouts have distributed patriotic literature and helped keep the public informed as to various aspects

of our war situation. They also did important distribution and propaganda work under the auspices, respectively, of the Food and Fuel Administrations.

During the summer of 1918 a farm labor canvass for the State of Pennsylvania was conducted by scouts, working under the United States Public Service Reserve, and in many places scouts have made a census and secured lists of available boarding and lodging houses for munition factory and shipyard workers.

Scouts have actively cooperated with all the great patriotic agencies, such as the American Red Cross, Y. M. C. A., Knights of Columbus, War Camp Community Service, etc. They have been ready to answer every call and have done effective work as messengers, guides, clerks, orderlies, ushers, intelligence officers, first-aid instructors and model "patients," canteen workers, cooks, collectors of salvage material, books and magazines. They have, in short, served in hundreds of capacities, making themselves generally useful in community and national work. They are enrolled by thousands as Victory Boys, pledged to "earn and give" in order to insure the well-being and happiness of our men in uniform.

Perhaps the most conspicuous service rendered by the organization is the work done for the Treasury Department in connection with the liberty loan and war-stamps campaigns.

In the first three loan campaigns, serving as "gleaners after the reapers," scouts sold 1 out of every 23 bonds sold throughout the whole country, and this in addition to an immense amount of miscellaneous service rendered to local committees, banks, etc. Final statistics are not yet available as to results of scout participation in the fourth campaign, but returns now in justify the belief that an even higher record of achievement was made.

Using the special red post card printed for their use by the Government, scouts have sold war savings and thrift stamps amounting at the present time to approximately \$40,000,000. It is expected that this sum will reach the \$100,000,000 mark by January 1.

When Mr. Hoover made his plea from overseas to the American people for intensive food production and rigid conservation measures, scouts were among the first to heed the word. Thousands of war gardens were immediately started. In many cases as many as two and three hundred acres were under cultivation by Boy Scouts. This work gallantly begun in the spring of 1917, under the slogan "Every Scout to Feed a Soldier," went on unabated during the 18 months of our participation in the war and will no doubt go on through 1919, since the need for food production will be greater and not less as the months go on. Scouts have spread war-garden and food-conservation propaganda, operated hundreds of thousands of war gardens, worked on farms, in farm camps, in orchard and berry

field, and canning factory, literally adding tons of food produce to our country's resources.

Space does not permit a detailed discussion of work done by scouts in this connection. The story would fill a book in itself. A few instances must suffice.

In 1917 Boy Scouts operated a Government-owned tract of 175 acres and raised a corn and market vegetable crop worth some \$10,000. The land was in a wild state—a tangle of wood and shrubbery when the boys attacked it. They cut down trees, cleared the brush, pulled the stumps and roots, prepared the soil, planted, cared for, and harvested the crop themselves and all the work done was purely voluntary, devoted to soldier feeding, not to gain.

In Portsmouth, Ohio, six medals were offered by the city for the six best gardens, and when the announcement of awards was made it was found that, competing with 2,000 gardeners, Boy Scouts had carried off all the six prizes.

During a shortage of labor last year, when an exceedingly valuable potato crop was in danger of going to waste along the Eastern Shore, scouts from Washington, Baltimore, and the vicinity came to the rescue. They were housed in camps, each camp under the charge of a scoutmaster and moving from farm to farm until the work was finished. A scout is prepared.

During the past summer 150 Boy Scouts of Dallas, Tex., with four cooks, four scoutmasters, and a scout executive, undertook and successfully carried out a peach-picking summer camp. The peaches were picked, packed, and shipped, amounting to 76 carloads in all, and the whole job was done by boys under 18, trained, disciplined, under competent leadership, willing and able to work in good earnest in a good cause.

These stories might be duplicated a dozen times, told in terms of strawberries, cherries, corn, apples, and what not. In many cases scouts have gone extensively into the canning and drying industry, often making their own equipment for the purpose. In New York City particularly valuable service was rendered in cooperation with the city kitchen. Scouts helped collect waste from the markets, piers, and terminals, and sorted it for use in the canning and dehydrating work done by the women operating the kitchen.

These manifold services rendered the Nation by scouts during the past strenuous months have been a real contribution to our war-winning program, but what the work has meant to the boys themselves is of even greater significance. The lessons of thrift and self-denial and hard work, of comradeship and loyalty, clean team play, patriotism, and unselfish service have not been learned in vain. His country means more to a Boy Scout because he has worked for it, given to it, served it with might and main. The scout movement

is dedicated to good citizenship making, and in their splendid cooperation with the Nation in its time of stress and strain Boy Scouts have made preparation for future usefulness as American citizens.

SCOUTING AND JUVENILE DELINQUENCY.

The present crisis brings with it the fear that juvenile delinquency may increase here in America, as it has done in the warring nations of Europe, unless effective measures are taken to prevent the evil. Scouting is an effective antidote for the poisons of undisciplined lawlessness. Scouting will supply the leadership made necessary by the departure for war of natural guardians of youth.

Judge Porterfield, of the Kansas City Juvenile Court, says:

If every boy in the city would join the Boy Scouts, the gangs would disappear, the juvenile court would be a stranger to the youth, and we would rear a generation of men that would not require police protection. I have never had a Boy Scout in my court, and there are 1,200 of them in Kansas City.

Dean Russell, of Columbia University, says:

One lesson of the present European war is that American boys must be trained in patriotism and in those homely virtues which would make for civic order and social stability. For this purpose, I know of no means so effective as those employed by the Boy Scouts. I hope to see the time when every American schoolboy will look forward to becoming a good scout and will be trained to incorporate the ideas of the Boy Scout into his life as an American citizen.

Scouting is not a reformatory movement. It was devised for the normal boy, neither very good nor very bad. Nevertheless, it is a very effective instrument for "straightening out crooked sticks." One has only to go to the Glen Mills Station (Pa.) Reformatory, where scouting is doing a splendid work of regeneration, to discover this. One juvenile offender committed to the reformatory and there developed into a first-class scout said recently that he liked being a scout "'cause it gives a fellow a chance to learn something all the time and help the other fellow." He had the whole spirit of the movement crystallized in his mind. That is what scouting can do, believing as it does that there are no bad boys, but some misdirected boys.

SCOUTING AND SOLDIER MAKING.

The Boy Scout movement has never believed it was a part of its province to develop amateur soldiers. It encourages drill only as a means, not an end, in the interests of quick mobilization, precision of movement, proper posture, and discipline. Its program does not include technical military training. That, it believes, can easily be added later if necessary, built upon the foundation of good health, good habits, efficiency, resourcefulness, loyalty, obedience, and trustworthiness. The scout is trained to responsibility. He knows how to take care of himself and others. He is trained to think quickly

and act quickly in emergency. Therefore, he makes a good soldier, if he is called to fight, just as he makes a good citizen if his duty lies along the ways of peace.

The military training commission of the State of New York accepts scout training as a satisfactory equivalent for the compulsory military training given other boys not members of the organization.

Maj. Gen. Hugh L. Scott says:

The necessary elementary instruction that every young American should have in order to be prepared to play his part in the national defense can be obtained by his work in the Boy Scouts of America.

An English officer once wrote to Lieut. Gen. Sir Robert Baden-Powell, the founder of the scout movement:

I say unhesitatingly as an officer on active service that if you offered me to-day the choice between a trained and efficient cadet and a trained and efficient scout as a recruit to my company, I would take the scout any day. Indeed, I would prefer one scout to two cadets, because whereas the scout could be taught platoon and company drill in no time, the cadet could not be taught all that scouting means under several months.

Thousands of former scouts and scout officials served under Gen. Pershing and rendered fine account of themselves, living up to scout ideals of courage, loyalty, and good faith, doing their duty to God and country as pledged by their well-kept oath. They were not especially trained to be soldiers before they entered the Army, but they were especially trained to be men, which is an even better thing.

CHAPTER XXIV.

GIRL SCOUTS AS AN EDUCATIONAL FORCE.

By JULIETTE LOW,
President, Girl Scouts.

So closely is learning interwoven with doing that to the Girl Scout herself all the scout activities are "just play." To the observant educator, the fundamentals of citizenship, good health, and community spirit are implanted through the natural ambition of the Girl Scout to strive for proficiency badges and scout honors. Subtler, but by no means less important, is the morale established by the Girl Scout promise and laws. The tests for scout rank and the system of merit and proficiency badges are planned with the four essentials for wholesome living in mind—headwork, handwork, health, and helpfulness.

The declared purpose of the Girl Scout organization is "to promote the virtues of womanhood by training girls to recognize their obligations to God and country, to prepare for duties devolving upon women in the home, in society and the State, and to guide them in ways conducive to personal honor and the public good"; in other words, to train girls for citizenship in the broadest sense. This is the undeclared desire in every adolescent girl's heart. Girl Scout troops are her laboratory courses in the school of living. Thus, the educational program of Girl Scouts supplements and strengthens the educational efforts of both the home and the school.

The average home is evolved by the parents for their own comfort and convenience. The schoolroom atmosphere and environment are created by the personality of the teacher. The adolescent girl longs for a place of her very own, where she can be herself, and where she can do the things she wants to do. The Girl Scout troop fulfills this need, because it is the girl's own creation, founded and managed by her in cooperation with comrades of her own age.

The scope of Girl Scout work is national; troops are organized in every State except Utah, and they are active in the Territory of Hawaii. Girl Scout troops are affiliated with the work of schools, churches, settlement houses, civic councils, community welfare organizations, women's clubs, etc., but the Girl Scouts' organizations are nonsectarian and nonpolitical. A girl may belong to other organizations at the same time.

On March 1, 1919, 41,225 girls between the ages of 10 and 18 were enrolled as Girl Scouts in the United States. Registrations were made at the rate of about 150 per day since January 1, 1919. This refers to the number of girls who have passed their "tenderfoot tests." There is also a great number of girls preparing for the ten-

derfoot examinations who are striving to reach the scout ideal. Statistics of October, 1917, show an enrollment at that time of about 9,000. The movement started with a small group of girls in Savannah, Ga., in March, 1912. The Girl Scouts were incorporated as a national organization on June 10, 1915. The number of second-class and first-class scouts has not been compiled, but the accomplishments of the organization indicate that large numbers have qualified for higher rank.

The form of the laws, promise, and the tests for scout rank were revised by the National Council in January, 1919. At the opening of every Girl Scout troop meeting, there is a simple ceremony. After the scouts salute the flag of the United States and pledge their allegiance, the captain gives the crisp command:

"Scouts, give your promise."

They reply as follows:

"On my honor, I will try to be true to God and my country; to help others at all times; to obey the Scout laws."

"Scouts, repeat the laws," is the next command.

The scouts answer:

"A Girl Scout is trustworthy; a Girl Scout is loyal; a Girl Scout is helpful; a Girl Scout is kind; a Girl Scout is clean; a Girl Scout is courteous; a Girl Scout is persevering; a Girl Scout is obedient; a Girl Scout is cheerful; a Girl Scout is thrifty."

"Scouts, give the motto," is the final order.

The girls answer, "Be prepared."

There are three classes of scouts—tenderfoot scouts, at least 10 years old; second-class scouts; first-class scouts, up to 18 years of age.

No girl may wear the Girl Scout pin, insignia, or uniform until she is formally accepted as a tenderfoot scout. To arrive at this distinction she must be at least 10 years old and she must pass the following test to the satisfaction of the Girl Scout officer in charge:

For headwork she must first of all know the Scout promise and laws, and the Girl Scout motto, "Be prepared," and the Girl Scout slogan. "Do a good turn daily"; she must also know by heart the first and last verses of "The Star-Spangled Banner" and the full name of the President of the United States, the governor of her State, and the head of her city or town government.

For handwork she must be able to tie four sailor knots in approved fashion—the reef, bowline, clove hitch, and sheepshank.

For health knowledge she learns the simple setting-up exercises and tenderfoot drill.

For helpfulness she promises to try to do a good turn daily to her troop, her school, her home, or her community.

The tests which must be passed for rank as a second-class scout carry on to more advanced stages the development of headwork, handwork, hygiene, and general helpfulness, begun in tenderfoot scouthood.

The second-class scout, for *headwork*, learns the history and meaning of the flag; knows her own measurements and how to record them; can recognize six animals, six birds, six flowers, six trees, and describe them so that another person may recognize them on sight; she learns the 16 points of the compass; how to prevent fire and how to stop it if fire starts; she is capable of using both the general-service code and the semaphore code. The second-class scout trains her powers of observation by playing games that require quick eye and dependable memory, such as noting at a glance the contents of a shop window, the appearance of passers-by in the street, or the game of tracking and stalking in the open. For *handwork*, the second-class scout learns to lay and light a fire in a stove, in a gas stove, or in the open, using not more than two matches. Having made her fire, she learns to cook simple dishes, such as cereals, vegetables, meats, fish, or eggs. She learns to set a table properly for two courses. She learns to make and air a bed properly, and she learns to make a bed for an invalid. The second-class scout also learns to sew a seam, hem, darn, either knit or crochet, and she must present a garment made by herself which demonstrates her skill as a needle-woman. She must also press out a scout uniform. For *health knowledge*, the second-class scout demonstrates her ability to stop bleeding, to remove grit from the eye, to treat ivy poisoning, to bandage a sprained ankle, to remove a splinter, and she must know the scout laws of health. For *helpfulness*, she is required to apply what she learns for the benefit of others, in service rendered to the troop, school, home, church, or community. *Thrift* is encouraged in the second-class scout test, inasmuch as the girl is required to earn or save enough to purchase some personal or troop equipment. Scouts of the second class take pride in drilling with snap and precision.

The first-class scout is almost a grown-up woman, capable of bearing the responsibilities that will come to her in her own home and in the community. The tests require that she be trained to higher efficiency in headwork, handwork, health knowledge, and helpfulness. It is the ambition of every Girl Scout to reach the rank of a first-class scout, when she may work for the highest honor of all, the Golden Eaglet badge, for which the requirements have been raised from 14 points for proficiency badges to 21 points. Twenty-six scouts in the United States have won the Golden Eaglet under the 14-point ruling.

For *headwork*, her judgment is called into play to make a rough sketch of the district around the troop meeting place; she is required to judge height, weight, numbers, and distance, according to the rules in the Girl Scout Handbook.

The first-class scout can demonstrate how to find the points of the compass by the sun and stars; she can send and receive messages

in general service code and in semaphore code at 30 letters per minute. The first-class scout test requires that she be skilled in *handcraft* and *housewifery*, demonstrating her knowledge of home nursing, first aid (Red Cross standards), child care, housekeeping, and that she also earn at least one of the following proficiency badges—laundress, cook, needlewoman, or gardener.

She must also do one or more of the following things: Take an overnight hike in the open, carrying all equipment and rations, or be one of four to construct a practicable lean-to, or be able to do the outer edge on skates, skate backward, and stop suddenly, or show her acquaintance from personal observation of the habits of four animals or birds, or organize a daytime hike for younger girls, arranging the food, transportation, occupations, etc.

For *health knowledge*, in addition to earning the first-aid badge, she must earn one other merit badge. For *helpfulness* she must present a tenderfoot scout trained by herself, present to the scout officers proof of some definite service to her community. For *thrift* she must earn at least \$1 and start a savings account. Second-class scouts may earn all merit badges except the Golden Eaglet, which may be awarded to first-class scouts.

The value of Girl Scout training is shown in the war work they accomplished in connection with the Red Cross, the War Garden Commission, the Food Administration, the Liberty loans and the Thrift campaigns, the Americanization work, and the labor replacement work by which these young girls released older women from home duties for war work of various kinds. None of these activities were new to the Girl Scouts, for there are scout merit badges to be won for first aid, artist, athletics, automobile driving, aviation, bird study, seamanship, child care, clerk, civics, cook, invalid cookery, cyclist, dairy, electricity, farmer, gardener, personal health, laundress, marksmanship, music, naturalist, needlewomen, horsemanship, home nursing, housekeeper, interpreter, pathfinder, pioneer, photography, scribe, signaling, swimmer, telegraphy. All second-class scouts may compete for any or all of them; most second-class scouts are working for some of them.

All these activities are voluntary, and progress in scout rank comes solely from the girl's own initiative. The result is the development of the undefinable something in Girl Scouts, which we call the scouting spirit, the esprit de corps, and an insistence on fair play, generous dealing, team work, coupled with individual development, which can all be summed up in the one word "character." Girl Scouts of to-day are the women of to-morrow. Even as young girls they are eager to do their share of the world's work.

The record of the Girl Scouts of Washington, D. C., during the influenza epidemic was typical of how Girl Scouts meet emergencies as they arise. Conditions were especially bad in Washington, and

through their initiative and skilled labor the Girl Scouts were able to save many lives. They made soups and broths and special dishes, which were delivered on doctor's prescriptions to more than 500 patients daily during the weeks of the epidemic. At the request of the commissioner of public playgrounds in Washington, they prepared 5 gallons of soup daily for the luncheons of the poor children under his care, helping to prevent illness through supplying proper nourishment.

Girl Scouts throughout the United States kept their knitting needles busy and knitted into Red Cross garments more than 2,550 pounds of wool. Thousands of surgical dressings were made for the Army hospitals. In Minneapolis Girl Scouts picked oakum in the Red Cross workrooms for thousands of the pads needed for the hospitals in the war zone.

During 1918, while the United States was actively at war, all of our people had an opportunity to put forth all their force for the Nation's good. Those who were best trained were the most useful. For the Department of Agriculture and the War Garden Commissions, the Girl Scouts took up their spades and hoes and cultivated acres of war gardens, at a profit, too, as is shown by the records from New York City scouts and others, who cleared an average profit of about two cents per square foot over all expenses. After their crops matured, the Girl Scouts went to work for the Food Administration and canned vegetables, fruits, jellies, jams, and pickles.

In the munition works and the aeroplane factories Girl Scouts, trained to obedience, trustworthiness, and perseverance, made themselves useful. Girl Scouts were employed as messengers by Government departments. Others kept house and cared for younger children so that older folk could do other work needed for the war.

Girl Scout troops sold Liberty bonds amounting to \$3,151,100 in the third loan campaign, and they doubled that amount selling fourth loan bonds to the amount of \$6,023,550. Troops also bought bonds from their own treasuries, helped the Women's Liberty Loan Committees by pasting posters and by acting as messengers. Girl Scouts also saved and earned money to buy \$5,305 worth of Thrift and War Savings Stamps—this is the minimum amount, because not all troops report their local activities to headquarters. So far, troops have reported the sale to other people of \$12,370 worth of Thrift Stamps.

During the war we realized more keenly the number of foreign-born people in our midst, who, while not actively against us, were not actively "for us," because they did not know much about America or the language, customs, thoughts, and ideals of Americans. Most of the foreign people have children, and, like all parents, their first thought and consideration is for the welfare of their children. If

America proves kind to their children, they will cheerfully live and die for America. Girl Scouts found a very special patriotic service in teaching through Girl Scout troop work the ideals of American citizenship to the children of foreign parents. Older scouts took great pride in starting troops in foreign settlements, training the tenderfoot scouts and teaching them about American citizenship. Special commendation was given by the America First Committee to New York City for their work in teaching English to foreign women and girls.

At the present moment the most effective public-service work that Girl Scout troops are doing is this Americanization work. Not only in big cities but wherever there is a mill, a factory, or a mine, where foreign laborers live apart from the life of the American community around them, Girl Scouts are finding that they can be of service in bridging over the gulf of ignorance and misunderstanding.

The real test of an educational system is in how well the students use the knowledge acquired. The following three instances of how scouts are turning back to the community the benefits derived from their home, their school, and their scout training deserve thoughtful consideration:

In New Bedford, Mass., foreign labor in the mills threatened to fall a prey to the epidemic of Bolshevism and industrial unrest. The city government, cooperating with the chamber of commerce, the school department, the Y. M. C. A., fraternal societies, and manufacturers' associations launched an aggressive campaign of Americanization. Girl Scout troops and Boy Scout troops were used to give the patriotic instruction to foreign workers in each mill.

In Cincinnati, Ohio, at the American House, where every opportunity is given to foreign men and women to become acquainted with American customs, habits, ideals, and the language we speak, Girl Scout troops have been formed to give patriotic instruction to foreign women and girls. These troops are officered by foreign-born girls who want to repay in some measure the benefits they have received from American institutions. The lieutenants of these troops are Girl Scouts of high-school age who want to pass on the scout training to others.

In New York City the local American First Committee formally commended the service rendered by Girl Scouts in teaching English to foreign women and girls.

It is by furnishing wholesome outdoor and indoor activities under influences that tend to build sturdy character as well as sturdy bodies that Girl Scouts are valuable in the educational work of the Nation, which we depend upon to develop the girls of to-day into sane, responsible women who will be capable of bearing intelligently the personal and social responsibilities that will come to them only a few years hence.

CHAPTER XXV.

EDUCATION IN THE TERRITORIES AND DEPENDENCIES.

CONTENTS.—Education in Porto Rico—Education in the Canal Zone—The Virgin Islands—Hawaii—The Philippine public-school system—Education in Alaska.

EDUCATION IN PORTO RICO.

By PAUL G. MILLER,

Commissioner of Education for Porto Rico.

The work of the public schools has been greatly handicapped during the past year through conditions brought about by the World War. The department has lost many of its most efficient men, who went into the military service. Due not only to war conditions, but also to the prevailing low salaries, frequent changes in the teaching corps have taken place, with the resulting loss of efficiency. The rural teaching force alone underwent 730 changes, whereas in the city of San Juan there were no less than 110.

In spite of these obstacles the work of the schools has been characterized particularly by the various activities carried on by supervisors, teachers, and pupils toward promoting the success of the United States and its allies in the World War. The war activities of the schools will ever stand out conspicuously as witnesses of the loyalty and patriotism of all. In this respect the work may be justly counted as a year of achievement and accomplishment unparalleled in the history of Porto Rico.

Special attention has been devoted to increasing the food supply through school and home gardens, both rural and urban.

For the promotion of community and war propaganda, and especially for agricultural development, committees were organized which conducted public gatherings. Parent associations, also, held public meetings; teachers visited rural homes; and in cooperation with the food commission rural conferences were held. These activities will be elaborated under their respective heads.

The chapter school committee of the Porto Rico chapter, American National Red Cross, effected local organizations of the Junior Red Cross in every municipality. In response to a special appeal made

by the commissioner, 2,587 teachers out of a total of 2,649 in the service at the close of the year made a special contribution to the second war fund, which, together with amounts given by the office staff of the department, the supervisory force, employees of the university, and certain employees of school boards amounted to \$6,665.89.

Porto Rico has an estimated population of 1,223,981, of whom 427,666 are of legal school age, i. e., between 5 and 18 years, and 215,819 of compulsory school age, i. e., between 8 and 14 years. The total enrollment in all public schools, excluding duplicates, was 142,846. Of these, 84,570 were enrolled in rural schools; 50,060 in elementary urban schools; 3,346 in secondary schools; 3,613 in night schools; and 1,257 in the University of Porto Rico. Of the 141,589 pupils enrolled in schools under the department, 80,063 were males and 61,526 females; 113,462 were white and 28,127 colored. In addition to the pupils enrolled in public schools, 7,248 children attended private schools.

The total enrollment was 33.1 per cent of the total population of school age and 65.6 per cent of the population of compulsory school age.

The average number belonging in all schools was 115,689; the average daily attendance 106,441, or 92 per cent. Of the 141,589 pupils enrolled, 2.4 per cent were found in secondary schools, 35.3 per cent in elementary urban schools, 59.8 per cent in rural schools, and 2.5 per cent in night schools.

These pupils were taught by 2,715 teachers, of whom 909 were men and 1,806 were women; 174 were teachers from the United States proper and 2,541 were native Porto Ricans; of the total number, 2,230 were white and 485 colored.

Of the elementary pupils, 62.7 per cent were promoted to the next higher grade, as against 60.1 per cent the preceding year. These figures are based upon the total enrollment. Using the average number belonging as a basis for calculating promotions, 81.8 per cent of the elementary urban pupils were promoted and 72.6 of the rural pupils, giving an average of 76.2 per cent for all elementary schools.

Eighth-grade diplomas were awarded to 2,035 pupils, and 347 high-school pupils received diplomas.

There were 42 new graded teachers added to the profession by means of licenses granted upon the basis of normal diplomas issued by the University of Porto Rico; 30 rural licenses were granted to persons who had completed the special two-year course for rural teachers in the normal department of the University of Porto Rico; and four rural licenses were granted to persons who had obtained the diploma in agricultural science issued by the College of Agriculture and Mechanic Arts.

Summer schools for the training of rural teachers were held at Río Piedras and Mayaguez, at the close of which 74 rural licenses were issued. Special examinations for the licensing of rural teachers were held also in October and November, resulting in the granting of 240 more rural licenses. This number, however, was not sufficient to supply the schools of the island, and it became necessary to issue 169 provisional licenses before the close of the year.

The schools of Porto Rico were conducted in 1,712 separate school buildings, representing 2,845 classrooms. Of these buildings, 540 are public property and 1,172 are rented; 316 are situated in urban centers and 1,396 in rural barrios. As to their character, school buildings range from the straw-covered shack in remote rural barrios to thoroughly modern concrete structures in the larger towns and cities. During the past two years 88 new sites for school buildings have been acquired, 20 in urban centers and 68 in rural districts; 58 school buildings, 17 urban with 141 rooms, and 41 rural with 49 rooms, have been erected during the same period.

The total assessed valuation of property is \$243,736,262, or \$199.01 per capita of population.

The expenditure for educational purposes last year was \$1,634,313.99 from insular appropriation and other funds and \$730,947 from school-board funds, making a total of \$2,365,260.99.

The total per capita expenditure per pupil was \$12.63 for elementary education and \$41.92 for secondary instruction. The per capita expenditure per inhabitant was \$1.93.

SCHOOL ALLOTMENT—URBAN VERSUS RURAL SCHOOLS.

Of all the children of school age in Porto Rico, 344,615 live in the rural barrios. Of this number, 84,570, or 24.5 per cent, were enrolled in the rural schools during the past year, whereas of the 91,604 children of school age living in the urban centers, 53,406, or 58.3 per cent, were attending school. This takes no account of a total of 3,613 enrolled in the night schools.

The above summary goes to show that in the urban centers over one-half of the population of school age is attending school, while in the rural districts this holds true for but one-fourth of the population. In other words, in order to enroll the entire population of school age, the number of urban schools would have to be multiplied by 2 and the number of rural schools by 4. Such an increase is totally out of question for the present in view of the economic status of the island. The fact that but one-fourth of the rural population of school age is at present enrolled in the rural schools by no means signifies that the remaining three-fourths are deprived of an opportunity to attend school. The reverse is nearer the truth. Probably

no less than three-fourths of the rural population attend school for a limited number of years, while perhaps less than one-fourth fail to avail themselves of the opportunities that are at hand. Furthermore, the period of school attendance in the Tropics is necessarily shorter than in a northern climate. Not a few of our young men and women marry and assume family cares before they have attained the maximum school age. Any attempt, therefore, to enroll the total population of school age is, and will ever be, impossible of attainment in Porto Rico.

The relative needs of the urban and rural populations have always been calculated on the figures given by the island census without regard to actual conditions, and the tendency as a result has invariably been to favor the rural population at the cost of the urban centers. This is shown by contrasting the provision for common schools in the budget of 1913-14 with that of the budget for 1917-18.

Urban and rural teachers provided for.

Teachers.	Year 1913-14.	Year 1917-18.	Increase. <i>Per cent.</i>
Total urban teachers provided for.....	965	997	1.2
Total rural teachers provided for.....	1,141	1,660	45.4

The results of this policy have been that, whereas in many municipalities rural teachers are unable to fill their schools to their normal capacity, in many of the urban centers, notably in such towns as San Juan, Ponce, Caguas, Bayamon, and Aguadilla, hundreds of children who clamor for admission at the opening of each school year have to be turned away. The absolute shortage of urban schools has been more especially felt of late years as a result of the city growth and the abolition of the double-enrollment plan.

RURAL EDUCATION.

The number of rural schools opened was 1,440. This takes no account of the rural schools opened in the semiurban zone and in some of the urban centers, as these schools follow the graded course of study and are considered part of the urban school system. The withdrawal of teachers, both urban and rural, to go into military service and into other work, has been one of the most perplexing features. An unusual number of graded and rural teachers resigned, and as vacancies in the corps of graded teachers are generally filled by the promotions of rural teachers who hold the graded license, the rural schools were the ones particularly affected. A total of 730 changes took place in the rural schools last year. This means

that approximately one-half of the rural schools have had more than one teacher during the year.

The numerous changes made the work of the supervisory force and of the department particularly difficult. To train a total of 730 new teachers, practically half the rural teaching force, to a satisfactory standard of efficiency is a problem to tax the industry, patience, and skill of the best supervisory force. The policy of the department under such circumstances has necessarily been to emphasize constructive supervision. Professional study and reading courses have been established; frequent teachers' meetings and demonstration classes have been held in all the districts; and everywhere much of the supervisors' time has had to be devoted to the strengthening of this unduly large proportion of new rural teachers.

For the purpose of further awakening public interest and of extending the usefulness of the rural schools, the rural uplift campaign initiated three years ago was given continued emphasis. All supervisors of schools gave particular attention to rural school organization, paid longer and more thorough visits to rural schools, held frequent conferences for rural teachers, and ultimately checked promotions in all rural schools grade by grade by making a personal examination of every pupil recommended for promotion. A much greater proportion of rural teachers lived in the barrios where their schools were located, and such teachers became a vital factor in neighborhood life. Teachers living in the barrios not only gave to the patrons of the districts an example of sanitary and wholesome living, but they often made the schoolhouse a social center, where parents' meetings, evening schools, and lectures were held. Where agriculture was stressed, teachers became the natural leaders of the food-supply propaganda, which has increased the available local food supply considerably. Libraries were opened for country districts, and teachers paid many visits to the parents in their homes.

The department has directly aided many of the supervisors by sending speakers to parents' meetings, which, as a rule, were held on Sundays. Supervisors report that the attendance at these Sunday meetings reached as high a figure as 400 persons. To-day the peasant of Porto Rico has come to realize that the rural schools belong to him as much as to the landowner or rich planter of his district.

To carry out this rural campaign has required much sacrifice on the part of the supervisors and rural teachers. To teachers accustomed to the comforts of city life, the isolated life of the country has entailed no small hardship, but results have compensated them for such unselfish service. Many supervisors who have stressed the rural campaign have given up almost all their Sundays to this work. While such labor is onerous, it is only by such devotion to the cause that the ultimate redemption of the illiterate peasant will be achieved.

Out of 1,440 rural schools, 1,262, or 87 per cent, were on the double-enrollment plan; i. e., they have one group of pupils, up to a maximum of 40, during the three hours of the morning session and another similar group in the afternoon for the same length of time. This arrangement allows the pupils to take their noonday meal at home, and also makes it possible for the older ones among them to help their parents at home and on the farm during part of the day. This is a very important consideration during the coffee-picking season, from September to December, when the entire population of some of the districts, old and young, is employed in the coffee harvest. This double-enrollment plan, while it has its serious disadvantages, insures a better enrollment and attendance.

The total number of pupils enrolled in the rural schools during the year was 84,570; and of this total, 48,821, or 58 per cent, were promoted. This low percentage of promotion is largely accounted for by the frequent changes in the teaching force and the closing of many schools for want of teachers.

CONSOLIDATED RURAL SCHOOLS.

A familiarity with the rural-school situation leads to the inevitable conclusion that the need is for *better schools*, rather than for *more schools*. The emphasis must be placed on better buildings, better equipment, on a fuller and necessarily longer course of study, with special provisions for the teaching of home economics, manual training, agriculture, and other industrial subjects. This will demand better teachers and, as a logical accompaniment, higher salaries. The consolidated rural school brings together three, four, or more rural schools within one building or common center, in contrast with the present isolated school plan, whereby an underpaid and often poorly prepared and immature teacher has to struggle as best he can with three, four, or more grades under his sole charge and with a large enrollment on the half-day plan. Such consolidated rural schools should eventually become the community centers of their barrios; and rural libraries, noonday lunches for the underfed pupils, medical inspection, and entertainments are some of the community improvements that would be brought within the scope of practical, successful achievement.

GRADED SCHOOLS.

The work of the graded schools has been carried on along very much the same general lines as in former years. The more important changes have been the following:

1. The teaching of English on a strictly oral basis, which last year was introduced in the first grade of the urban schools, has been ex-

tended to the second grade of the urban and to the second and third grades of the rural schools as well. In addition to the First Grade Manual in Oral English, which was published last year, a manual for the second grade has now been put into the hands of all primary teachers. A Third Grade Manual has also been under preparation and has been given a thorough preliminary test in some districts.

The shifting from reading to conversation as a medium for the teaching of English in the primary grades meets the needs of pupils and leads them along a natural and easy road to the stage where they are enabled to carry on the bulk of their studies in the English language, as is required of them in the intermediate and grammar grades. It brings the Porto Rican child in this particular respect one step nearer to the level of the American child who hears and talks English four or five years before he is required to read it.

2. The policy of the department to provide pupils with books specially designed for them was further advanced last year by the introduction of a specially prepared textbook in arithmetic for the use of third and fourth grade pupils. The text is in Spanish. It supplements and carries forward the beginning made last year when a special manual for the teaching of arithmetic in the first and second grades was prepared and issued to the teachers.

3. A special pamphlet on moral and civic training has also been prepared and issued. Formal instruction in this subject has now been made a brief but regular feature of the daily program of our schools. The need for something of this sort was realized a long time ago. The past history of the island, the limited experience of the people in self-government, the illiteracy which still prevails in the country districts, and the relatively few agencies, outside of the public schools, making for the enlightenment and the upbuilding of the people along moral and social lines, brought the need for such a course into plain evidence.

The improvement which has taken place in the primary grades as a result of the introduction of a better coordinated system of teaching such elementary subjects as Spanish, English, writing, and arithmetic, in closer harmony with the needs and the life experience of Porto Rican children, has everywhere been a remarkable one. Better general results are evident, and this appears in the percentage of promotions from these lower grades.

This improvement is further due to the introduction and use of specially prepared textbooks in which the standpoint of the Porto Rican child, his experience, and his needs are given due consideration. The department plans to extend gradually the policy of using specially prepared books and to exclude those which do not provide for the special requirements of the Porto Rican child.

HIGH AND CONTINUATION SCHOOLS.

Secondary school work was carried on in 11 high and 26 continuation schools, not including the University High School at Rio Piedras, nor the preparatory department of the College of Agriculture and Mechanic Arts, Mayaguez. In addition to the 11 regular four-year high schools, ninth grade work was taught in 26, and tenth grade work in 11 municipalities.

The total enrollment in secondary schools was 3,346, of which number 1,584 were boys and 1,732 were girls. These figures show an increase in the enrollment over that of any previous year, but a relative decrease in the number of boys enrolled as compared with the preceding year. The enrollment was distributed as follows: Twelfth grade, 382; eleventh grade, 601; tenth grade, 898; ninth grade, 1,465.

The total number of graduates from the 11 department high schools was 347; from the general course, 310; from the commercial course, 37. The University of Porto Rico issued 71 secondary diplomas.

Difficulty in securing texts and supplies because of delays in transportation, the shifting of teachers because of vacancies brought about by war conditions, and the decrease of enrollment due to economic conditions, made the year a trying one to teachers, principals, and supervisors. Notwithstanding these adverse conditions, the quality of work done was generally satisfactory, and no cases of infraction of discipline marred the year's work.

The Central High School at San Juan continued to occupy a building entirely unsuited for a school. Lack of teaching force and schoolroom capacity made it necessary to refuse admission to many applicants, and as a consequence ninth grades were organized at other school centers in San Juan; but even by the organization of these extra ninth grades many ambitious young people could not secure admission.

WAR WORK OF THE SCHOOLS.

The all-prevailing activity of the schools during the year was the work of teachers and pupils in connection with the World War. The complete mobilization of the vital forces and material resources of the Nation for the successful prosecution of the war which had been effected throughout the United States had likewise been put into operation here. Porto Rico, which had but recently been granted the privilege of American citizenship, could not remain indifferent to the conflict in which the Nation had become involved.

THE FOOD QUESTION.

Although in its commercial relations with the mainland Porto Rico during the fiscal year ending June 30, 1917, had a balance in its favor of 27 million dollars, largely as a result of its constantly growing exports of sugar, tobacco, and fruit—the exports under these three heads alone totaling \$70,468,907—it nevertheless depended upon the United States for a very large proportion of its food supply.

The war brought into striking relief all the disadvantages and dangers of Porto Rico's dependence upon the distant markets of the United States for her daily food supply and the need of taking immediate measures to place herself on a relative basis of self-support. It is owing to this that the appeal of the United States Food Commissioner, to save food and to add to the sources of its supply, carried special weight in the case of Porto Rico. The appeal fell on soil already prepared. To the incentive of patriotism there was added the all-compelling force of the instinct of self-preservation.

COOPERATION WITH THE PORTO RICO FOOD COMMISSION.

In the matter of promoting the agricultural interests, the department worked in cooperation and harmony with the local food commission. A total of 35 supervisors of agriculture were employed during the year. Twenty-five of these were special agents of the food commission and were paid out of its special funds. The remaining 10 were paid out of the funds of the department. All, however, were in equally close relations with the department, and all worked through and with the supervisors and teachers of the public schools for the improvement of the food situation. Teachers everywhere, those in the country districts especially, served as distributing agents for the pamphlets and circulars issued by the food commission. Rural teachers acted as the local representatives of the commission, collected the necessary information, and made regular reports of the food situation of their respective barrios.

FOOD CONSERVATION WEEK.

All the wheat flour consumed in Porto Rico, a total of 310,516 barrels for the fiscal year 1916-17, was imported from the United States. Wheat being the cornerstone of the national food conservation campaign, it behooved Porto Rico to do its share in the conservation of this food product. As wheat does not grow in the Tropics, Porto Rico could only help by limiting its consumption of white bread. A further appeal was made by the food commission for economy in the consumption of such other imported foodstuffs as

were needed by the people of the allied countries. To bring about this result an island-wide campaign of education and propaganda became necessary. A direct appeal had to be made to the patriotism and good will of every inhabitant. A large part of this work naturally devolved upon the rural schools.

During "Food conservation week" a campaign was conducted by public-school teachers in every town and barrio of the island. The number of public meetings held during that week exceeded 2,000. Both urban and rural teachers made a house-to-house canvas to explain the meaning of the pledge card and to secure signatures.

A grand total of 122,826 pledge cards were signed through the efforts of the schools.

AGRICULTURAL AND PATRIOTIC PROPAGANDA.

The following summary will show the nature and extent of the campaign carried on by the schools:

1. Number of agricultural committees (Comités de Fomento Escolar y Agrícola) organized-----	1,177
2. Number of public meetings held by these committees-----	2,380
3. Number of parents' associations-----	831
4. Number of public meetings held by these associations-----	1,297
5. Number of rural conferences-----	2,157
6. Number of rural homes visited by teachers-----	60,038

These thousands of home visits and public meetings have made a deep and lasting impression on the people. The necessity of food economy, of increased food production, of improved methods of cultivation, and of planting a greater variety of products has been preached to the remotest rural barrio of the island.

Patriotic propaganda has also been stressed. A campaign of education to explain the causes and the aims of the war, its relation to the people of the United States and of Porto Rico, the duty of every citizen to contribute to the successful outcome of the conflict the fullest measure of his powers and resources, has been conducted from one corner of the island to the other.

WAR LITERATURE AND PATRIOTIC INSTRUCTION.

Teachers have found ample material, both for their daily classes and for their conferences with the people of their respective communities, in the literature that has been supplied them by the department and by the insular food commission. A number of pamphlets from various patriotic organizations in the United States were also mailed to the teachers. In addition the department procured a full supply of the monthly bulletins issued by the Commissioner of Education of the United States, entitled "Lessons in Community and

National Life," and incorporated these in the regular course of study in English and civics for all the upper grades of the common schools and for the continuation and high schools. "Democracy To-day," a collection of President Wilson's principal war addresses, as well as speeches by other statesmen, properly edited for class work, was used as a text in high-school work. Spanish copies of "How the War Came to America," published by the Committee on Public Information, were distributed to all teachers and school board members in order to enable them to become thoroughly posted on the issues on which the Nation entered the war.

The result has been that many of the teachers and not a few of the older pupils have become efficient propagandists, ready and able to take part in the molding of public opinion along patriotic lines.

AGRICULTURAL COMMITTEES.

In order to popularize the movement for food conservation and for increased food production, a local committee officially known as "Comité de Fomento Escolar y Agrícola" was formed in every barrio. Each was composed of five influential citizens, preferably farmers of the more intelligent and progressive class. These committees met periodically in the schoolhouse and planned their work in close cooperation with the rural teacher and with the agricultural agent of the district. Each committee held public meetings for purposes of propaganda among the inhabitants of the barrio. The local teacher and a number of prominent people from the near-by town took an active part in the meetings. The supervisor of schools and the agricultural agent of the district also took part whenever their other duties permitted. A total of 1,177 of these committees were organized during the year, and they held a total of 2,380 public meetings.

PARENTS' ASSOCIATIONS.

The organization of parents' associations dates back three years. While a certain number of these associations were this year merged into the agricultural committees and in a way absorbed by them, many carried on their independent activities. A total of 831 such associations held 1,297 public meetings. While the subjects discussed had a special relation to the life of the school in its more limited educational or professional aspect, questions of general interest and especially those related to the World War did not fail to receive their due share of attention.

RURAL CONFERENCES.

In addition to the meetings held under the auspices of agricultural committees and parents' associations, all more or less local in

character, conferences of a more general nature have been held under the immediate direction of the supervisors of schools in all the towns and main barrios. Special speakers were secured for these conferences, both the insular food commission and the department of education sending representatives. The local municipal authorities, professional men, and many public-spirited citizens throughout the island gave their services as speakers. At the close of the year the commissioner of education sent a personal letter of thanks and appreciation to each of these. A total of 2,157 of these general conferences were held during the year.

Universal enthusiasm has been aroused by this island-wide propaganda. This is the first time in the history of Porto Rico that a campaign of education has been undertaken in behalf of the population at large. These meetings have served as popular forums in which questions of public interest have been brought to the attention of a people the majority of whom are still illiterate and who can not be reached by means of the daily press or any other agency except direct contact. Porto Ricans have come to realize the meaning of the great war, their responsibilities and their opportunity of demonstrating their loyalty to the Nation and to the cause for which it fights.

The success obtained in increased food production is most gratifying. Above all, the home garden movement holds special promise for the future.

During the past year there were established 1,312 rural and 83 urban-school gardens used for instructional purposes. Only 103 rural schools did not have school gardens, generally for lack of land. The schools fostered the cultivation of 5,548 urban home gardens and 21,145 in the country.

The large farm and plantation owners have come to realize the need for a greater variety of products. They now plant large acreages in corn, beans, potatoes, onions, and yautías, whereas in the past they limited their activities to a few standard products, to cane, coffee, tobacco, and the like. Better methods of cultivation have been advocated and their importance is better understood. Certain sections of the island not only raise enough vegetables for their own needs but now produce a relative surplus for other markets.

Twenty-five agricultural exhibits held in various towns toward the close of the school year have attracted deserved attention, both for the quality and for the quantity of the products exhibited. Some of these exhibits compare very favorably with those held in the United States.

WORK IN HOME ECONOMICS.

The course of study in home economics, including both cooking and sewing, comprised four years of work, extending from the seventh through the tenth. This work was conducted in 42 municipalities.

A two weeks' summer school for teachers of home economics was held in August to study the new conditions and the new work for the ensuing school year.

Owing to changed living conditions, due to the war, the course of study in practical cooking was changed entirely. Since it was feared that communication with the mainland might be cut off, special bulletins were prepared to instruct students and their families in a diet that would make use of local food products. An effort was also made in these bulletins to increase local production of the necessary carbohydrates, proteids, and fats.

Recipes for the preparation of pie and bread were entirely omitted, quick breads and local substitutes taking their places. In all other recipes calling for wheat flour, starch extracted from native vegetables such as yautfa and batata was substituted. A simple home process was explained whereby the large percentage of starch contained in these vegetables could easily be extracted. Children learned to make use of this starch for thickening sauces, soups, and gravies, the starch serving as an excellent substitute for flour and the corn starch ordinarily used. Lard and butter were omitted from all recipes, and coconut fat, coconut milk, or coconut butter substituted. Coconut fat was extracted and bottled in the classroom. Frying was eliminated and baking substituted. In place of bread there were substituted baked or boiled yautfa, baked or boiled batata, baked plátanos, casabe, sorullos, arepas, gofio, hallacas, and corn bread. Slices of boiled yautfa and boiled batata displaced bread in making sandwiches, for which as a filling peanut butter, shredded coconut, or a combination of these was used.

While the students of home economics were taught a year ago the possible use of local food products in the event of a food shortage, the sinking of the *Carolina* brought home to the people the absolute practicality of such teaching, and increased interest in both students and outsiders developed with very gratifying success. As the result of a year's teaching along these lines, the number of home gardens increased materially. In nearly every town, every student of home economics had a garden. Gardens were planted and studied by girls as a war measure so that women might learn to produce as well as to prepare food.

An exhibit of the year's work was held in each town at the close of school. Collections of starch, wheat bread substitutes, industrial

cards, and sewing work were shown. Laundering utensils, the proper setting of a table, and invalid trays were often included. The care and feeding of infants was demonstrated by means of a doll dressed as a baby, showing clothing, feeding bottle, and bed.

EXTENSION WORK IN HOME ECONOMICS.

Mothers' classes taught in Spanish were given by Porto Rican teachers of home economics once a week. These classes covered a period of two hours. The use of wheat substitutes and war-time menus was studied. These classes varied in size from 10 to 80 persons. In small classes actual cooking was done; in larger ones, demonstration lectures were given.

Neighborhood evenings were held once a month in the home economics room, at which meetings subjects relating to home and community life as affected by the war were discussed. Men, women, and older students attended these meetings, which usually were crowded. Extension work by the teachers of home economics was carried on in some of the rural districts by means of lectures and demonstrations. Bread substitutes were taught and gardening was encouraged at these meetings.

SEWING.

Sewing classes studied the change produced in the clothing problem by war. Clothing conservation was taught, as well as the purchase of durable clothing and the elimination of unessentials, such as laces, ribbons, dress trimmings, and jewelry. All fourth-year classes made pajamas for the Red Cross.

The change made in the course of study in the past year has facilitated still greater adaptation to war conditions. The practice secured will make it possible to do much work in refugee garments, while the hospital garments will continue to be made as long as money and materials are available.

MANUAL ARTS.

The work in manual arts for the past year has been badly handicapped because of the entrance of more than one-half of the teaching force into the military service of the United States. The other half was left in a restless condition, but, in spite of this fact, the year's work as outlined was completed and many problems bearing upon the construction of articles suitable for use by the Red Cross and the Young Men's Christian Association were worked out. These included knitting needles, food driers, beds, tables, bed supports, checker boards, and folding chairs. The manual arts classes in

every town where this subject was taught made bulletin boards for the posters of the United States Food Commission. All this work was done in addition to the regular repair work, class work, and community work done by the pupils.

In order to fill many vacancies in the manual arts teaching force, caused by war conditions, a summer session was held at the College of Agriculture and Mechanic Arts for high-school graduates who had done exceptional work in this subject and who were especially recommended by the respective supervisors of schools. The results of this summer school were gratifying, though most of the candidates were necessarily young, the average age being 21 years. Enough candidates were obtained to fill all vacancies.

JUNIOR RED CROSS DRIVE.

The commissioner of education, the president of the school board of San Juan, and the supervisor of home economics were designated as the chapter school committee of the Porto Rico chapter of the American National Red Cross for the purpose of organizing and carrying out the Junior Red Cross drive. In every municipality there was appointed a local committee of three members, consisting, as a rule, of the supervisor of schools or the acting principal, the president of the school board, and a teacher, usually the teacher of home economics.

Owing to the fact that the public schools were engaged in one kind of war work or another since the outbreak of the war, the committee delayed organizing the Junior Red Cross membership and financial campaign until the early part of the month of May.

Teachers and children, aided by a generous public, responded loyally and patriotically to the efforts of the chapter school committee and local committees. The results are considered exceptionally good when one bears in mind the poverty prevailing in many parts of Porto Rico, and also the fact that no special effort was made to carry the campaign to rural schools.

In 52 municipalities all the urban school pupils were enrolled as members of the Junior Red Cross, and in 11 municipalities, namely, San Juan, Ponce, Arecibo, Fajardo, Guayama, Gurabo, Hatillo, Juncos, Patillas, Barceloneta, and Camuy, all pupils, both urban and rural, were so enrolled. The total membership at the close of the year was 68,013, and the total amount contributed \$21,501.22.

AMERICAN RED CROSS.

In addition to the activities in behalf of the Junior Red Cross many teachers have aided in the work of the Porto Rico chapter of the American Red Cross wherever it had local organizations.

During the second war-fund drive an effort was made to have all employees of the insular government give one day's pay as a special contribution to this fund. An appeal was sent to supervisors and teachers by the commissioner, urging them to make one more sacrifice in addition to those already made. Of 2,649 teachers in the service at the close of the year, 2,587 made this special contribution.

LIBERTY LOAN CAMPAIGNS.

The schools have taken an active part in the Liberty Loan campaigns for promoting the sale of liberty bonds. They have participated in all the civic parades organized for this purpose, and in a few towns the propaganda for the sale of bonds was directly in the hands of teachers and school boards, who conducted public meetings in which the schools participated. A total of 705 liberty bonds were bought: By the office and supervisory force, 104; by teachers, 522; by schools, 79. Good records for the purchase of liberty bonds were made by the supervisors and teachers of the Fajardo, Ponce, and Yauco Districts.

SCHOOL MEN IN MILITARY SERVICE.

Since the United States entered the World War the department of education and the University of Porto Rico have lost 233 of their best men by their entering the military service. Of these, 10 were supervisors of schools, 12 instructors in the university, 4 high-school principals, 10 high-school teachers, 5 school board members, 18 manual-training teachers, 13 teachers of English, 2 special teachers of agriculture, 49 graded teachers, and 110 rural teachers.

NATIVE INDUSTRIES.

In addition to the courses in home economics and manual training, which have become a regular part of the urban course of study, plain sewing for girl pupils was taught in the urban schools of 27 municipalities and in certain rural schools of 60 other municipalities. While in the greater number of rural schools both boys and girls were required to do garden work, in many there were not enough implements nor sufficient land available to employ both sexes, and in all such cases the girls spent one full period each day in sewing, while the boys were at work in the garden. In very many instances women teachers devoted an hour after the close of the regular daily session to the teaching of sewing, embroidery, and lace work. No additional pay was received for this work.

The teaching of native industries in the schools is a question of momentous importance in connection with the future welfare of the people. This can not, however, be undertaken in a general and sys-

tematic way until such time as the legislature finds it possible to provide special funds for the work. The need of expert supervisors and teachers is especially urgent. This need has been recognized by a number of school boards. Special instructors in hat making, sewing, and embroidery have been employed by some of the boards with good results. But very few of them have funds available for this purpose. An additional preliminary step that must be taken is to increase the available supply of raw materials. In certain sections the hat palm and textile plants are plentiful. In other sections, however, they are not to be had. In a number of towns where plans were made during the year for instruction in hat making, they had to be abandoned owing to the difficulty in securing raw materials. It will therefore be necessary to carry out a systematic campaign for the cultivation of palm and textile plants on a wider scale before a number of native industries can become generalized.

School boards, supervisors, and teachers have been urged to go ahead in this matter independently. The importance of the step is not, however, as yet generally recognized. In but 37 of the municipalities have any efforts been made in this direction. In 38 municipalities absolutely nothing has been done. It is gratifying none the less to report on the results already accomplished in approximately one-half of the districts.

Many of the products of the pupils' industry have found a ready market in the island. In order to command a market in the United States, however, these products will have to be standardized. This department realizes that this is a field for increased attention as soon as the legislature makes the necessary funds available.

SCHOOL LIBRARIES.

Urban school libraries are maintained in 62 municipalities. They report a total of 32,950 volumes, an average of 530 per library. Unfortunately, many of the books which were acquired or donated in years past are not in the least adapted to the needs and interests of school children. Since the department issued an official library guide, however, with the added regulation that all books purchased from school-board funds should be selected from the guide, these libraries are gradually assuming a character and an appearance more in harmony with their purpose. A total of 2,435 new books have been bought for the town libraries during the year at a total cost of \$1,218.55. A considerable number of books have also been donated.

Thirty-four municipalities report the maintenance of rural-school libraries. The total number of books is 5,097, an average of 150 books per municipality. Of these, 1,137 have been bought during the year and are of a nature that will meet the needs of rural pupils.

SCHOOL LUNCHES.

The movement to provide poor school children with noonday lunches was initiated some years ago by individual teachers with the cooperation of public-spirited men and women. The movement has grown to encouraging proportions, although it is still wholly supported by private funds. While it has not been possible to devote any public money to this work, the department is in entire sympathy with it, and it has done what it could to encourage and extend it. A law was enacted by the legislature at its last session to appropriate public funds for it. Unfortunately, the scarcity of funds available for school purposes will nullify the favorable action of the legislature for the present, as other needs of the schools of an even more imperative nature will have to be given preference.

Wherever it has thus far been possible to provide noonday lunches the results have been most satisfactory. Supervisors and teachers report a better attendance and a higher grade of individual work. The "comedor escolar" insures the undernourished child at least one fairly well-balanced meal every school day.

In many instances teachers have through various activities been able to pay a large proportion of the cost themselves. In the town of Lares, for instance, the principal of the schools leased the town theater and gave a moving-picture show throughout the year for the exclusive purpose of providing funds for lunches. This accounts for the fact that the Lares teachers were able to feed, on the average, 50 pupils each day at a cost to the community of less than 1 cent per pupil.

DEPARTMENT PUBLICATIONS.

During the biennium the department issued 214 circular letters dealing with administrative matters, and 11 bulletins for the guidance of teachers bearing directly upon the work of the schools.

The Porto Rico School Review, published under the auspices of the department of education and the Porto Rico teachers' association, was issued monthly during the school year and replaces to a large extent the bulletin heretofore issued in pamphlet form. The Review has developed into a standard professional magazine and serves as a forum for discussion and as a medium for informing the teaching force of matters of educational importance.

TEACHERS' MEETINGS AND INSTITUTES.

In view of the relatively large proportion of new teachers who have come into the service during the past few years, due to the increase in the number of schools and also to the fact that many of the more experienced teachers left school work as a result of war conditions, supervisors have everywhere been called upon to take special

measures to meet this situation. This has called for longer and more frequent visits on the part of the supervisors, and everywhere added importance has been given to such factors as teachers' meetings and demonstration classes.

Of teachers' meetings a total of 327 are reported during the year. This does not include the very many grade or group meetings which have been held at stated intervals in practically all districts. Of these 327 meetings, an average of 7 per district, 166 were graded teachers' meetings, 87 were for the special benefit of rural teachers, and 74 were general district meetings.

The following subjects are illustrative of the practical nature of the themes discussed:

- Purpose and value of seat work.
- Types of seat work.
- Teaching of English and Spanish in the primary grades.
- English pronunciation.
- Moral and civic training.
- Securing the cooperation of parents.
- The hour plan.
- Teaching children how to study.
- Socializing the recitation.
- Motivation of school work.

Activities connected with the war received their full share of attention. Food conservation and extension of the food supply, school gardens, the American Red Cross, the Junior Red Cross, Liberty Bond campaigns, and War Savings Stamps were common topics of discussion, and in all the districts special meetings were devoted to these subjects.

Series of practice or demonstration classes have been held in many of the districts for the special benefit of weak or inexperienced teachers. Another practice which has been followed to a much greater extent than in the past has been that of allowing weak teachers a visiting day. In many instances teachers have shown a readiness to undergo the expense and trouble of visiting some of the larger educational centers, away from their respective towns, to observe the work of the more successful teachers and to familiarize themselves with certain experiments that were being conducted in educational lines.

General teachers' institutes were held at Aibonito, Guayama, Bayamon, Humacao, Quebradillas, San German, and Caguas. Other institutes, somewhat more local in character, were held at Fajardo, Manati, and Maricao. At all these meetings representatives from the department assisted the local supervisors. The nature of the meetings was constructive rather than corrective, as has been the practice in the past. Demonstration classes were given, and certain subjects of the course of study received definite attention.

**ACADEMIC AND PROFESSIONAL QUALIFICATIONS OF THE
TEACHING FORCE.**

As an index to the amount and kind of academic and professional qualifications of the teaching force of Porto Rico, the following table is presented, showing the bases of the licenses held by the teachers:

TEACHERS HOLDING THE PRINCIPAL'S LICENSE.

Degree from a college or university-----	25
Four years' normal training-----	244
By examination -----	50

HIGH-SCHOOL TEACHERS.

Degree from a college or university-----	26
Four years' normal training-----	13
Two years' normal training-----	1
Upon basis of experience or special training-----	13

SPECIAL TEACHERS.

Degree from a college or university-----	21
Four years' normal training-----	32
Two years' normal training-----	1
Upon basis of experience or special training-----	37

TEACHERS OF ENGLISH.

Degree from a college or a university-----	44
Four years' normal training-----	45
High-school or academy diploma or previous license-----	18
By examination -----	3

GRADED TEACHERS.

Degree from a college or a university-----	2
Four years' normal training-----	3
Two years' normal training-----	879
By examination -----	783

RURAL TEACHERS.

Two years' normal training-----	9
By examination-----	1, 133
Total -----	3, 362

SUMMARY.

Teachers holding a degree from a college or a university-----	118
With four years' normal training -----	317

With two years' normal training -----	890
Upon basis of experience or training-----	50
With high-school or academy diploma or previous license-----	18
Entering by examination -----	1,969
 Total -----	 3,302

PROFESSIONAL READING COURSES.

An organized effort has been made during the past three years to raise the professional standard of the teachers by providing them with a number of the best and latest books on educational questions. As a result, reports received from supervisors all point to the unquestionable improvement which has been brought about in the general attitude and in the efficiency of the teachers. During the year just closed no insular funds have been available for the purchase of professional books. An appeal was, therefore, made to teachers to purchase the books, indicated for the year's reading course, out of their own funds. They responded readily. The books thus purchased will be available for reference during succeeding years, and every teacher will thus have the nucleus of an individual professional library to which, it is hoped, each will add as his means will permit.

The books recommended for the year's reading course were as follows:

1. For rural teachers:

Social problems in Porto Rico—*Fleagle*.
Jean Mitchell's School.

2. For urban teachers from the first to the fourth grade:

Motivation of School Work—*Wilson* and *Wilson*.
A Schoolmaster of a Great City—*Patri*.

3. For urban teachers from the fifth to the eighth grade:

Motivation of School Work—*Wilson* and *Wilson*.
Education for Character—*Sharp*.

4. For high and continuation school teachers:

Supervised Study—*Hall-Quest*.
Education for Character—*Sharp*.

5. For school supervisors:

Teaching Elementary School Subjects—*Rapeer*.

During the year 1916-17 the following books were prescribed: Earhart's Types of Teaching; Bagley's Classroom Management; Thorndike's Principles of Teaching; and Strayer's a Brief Course in the Teaching Process.

A small but constantly growing collection of professional books is now found in the office of every district supervisor. Standard professional magazines, such as Normal Instructor and Primary Plans, the Porto Rico School Review, Primary Education, and the Elementary School Journal have large numbers of subscribers among the teachers.

The readiness of teachers to make pecuniary sacrifices and their willingness to adopt any suggestions tending to their professional improvement is a decidedly encouraging feature.

RATING OF TEACHERS.

At the close of the school year all the teachers in the active service in the schools of the island were classified according to efficiency of service, a modified form of the Boyce score card being used. Classifications range from E, the highest, to P, the lowest. The latter classification results in the cancellation of the teacher's license and his removal from service.

Summary of the classification of teachers.

Classification.	Urban teachers.	Rural teachers.	Total.
E.....	215	31	246
G.....	886	1,077	1,912
F.....	67	414	481
P.....	2	8	10
Total.....	1,119	1,530	2,649

SCHOOL CELEBRATIONS.

The celebration of school holidays in Porto Rico has been found an excellent means of establishing closer relations between parents and school authorities. On these occasions exhibits of work done in the classroom are usually displayed in order to give the parents an idea of what is being accomplished.

Some of the holidays were observed by appropriate exercises held in the afternoon of the previous day. Of the legal holidays, Washington's Birthday, Columbus Day, Thanksgiving Day, Abolition Day, and Memorial Day were duly celebrated. Arbor Day, Lincoln's Birthday, and Mothers' Day, though not legal holidays, were also generally observed.

The passing of the Jones law, the new organic act under which Porto Rico is governed, was celebrated in several districts by appropriate patriotic exercises. The total number of celebrations held in the 41 school districts was 170.

EDUCATIONAL TESTS AND MEASUREMENTS.

During the year 1915-16 the general educational tests given by the department in Spanish, English, arithmetic, and reasoning produced wide interest and resulted in their extension in many districts. Tests were conducted in 50 of the 74 municipalities. Of the 41 supervisors,

all but 9 gave tests in several grades, while a few supervisors held general tests not only to measure progress with like grades in the same municipality but to compare results with standard measurements. In but few districts, however, was attention given to tests in rural schools.

Two supervisors made use of the Studebaker economy practice exercises as the basis for periodic tests in arithmetic, and one supervisor used the Courtis tests for the same purpose. The Ayres measuring scale for ability in spelling was used in many districts, while three supervisors made similar scales for testing the ability of children to spell in Spanish. Although the spelling of English words will necessarily be emphasized throughout the school course, it is believed by several supervisors that, by proper attention to the matter, the spelling of Spanish words can be fixed by the end of the fourth grade. In measuring the ability to write, both the Highland and the Zaner handwriting scales were used.

Tests were held in Spanish, English, writing, physiology, civics, history, arithmetic, memory, and reasoning, but the greatest number was given in arithmetic. Some supervisors emphasized accuracy and others reasoning; all agree that the tests stimulated both teachers and pupils. Most supervisors report that results secured from rural districts were very discouraging.

One supervisor who has carefully prepared and preserved standard work for every subject in every grade reports that "withdrawals are the chief factor in producing retardation." Another supervisor maintains that the entire course of study is too difficult, and that "scarcely any children in any grade are abreast with the work as outlined for the grade."

THE UNIVERSITY OF PORTO RICO.

The University of Porto Rico comprises the Normal Department, the Colleges of Liberal Arts, Law, and Pharmacy, the University High School, and the Practice School, which is attended by elementary school pupils, all located at Rio Piedras; and the College of Agriculture and Mechanic Arts situated at Mayaguez.

RIO PIEDRAS DEPARTMENTS.

Marked improvements have been made during the past year in buildings, grounds, and material equipment. The pharmacy department has been moved into large and well-lighted rooms of the Memorial Building, where it is in close proximity to the physics and chemistry laboratories and fully equipped with the proper laboratory conveniences and necessities. The usefulness of the biology laboratory has been greatly increased.

The library accommodations have been improved, and the library is now under reorganization to conform to the Dewey system. In spite of changes, the university is still badly in need of more and better buildings.

Many students of the university have entered the teaching profession this year by taking special examinations or by securing temporary licenses.

The first steps in a self-survey of the university were taken at the end of the year by securing from each member of the faculty a synopsis of each course offered by him during the current year, and detailed comments and suggestions concerning the local administration of the university. The most immediate problems connected with the development of the university are financial.

None of the plans for improvement and extension, including the development of the college of liberal arts, the organization of a school of education, a school of medicine, and a school of commerce, and the effecting of a scheme of cooperation with universities and colleges of the United States for the preparation of teachers of Spanish and of commercial students entering the field of Latin-American commerce, can be put into effect until the university has more and better buildings and material equipment, and sufficient funds for increasing the faculty. There is great need of legislation to place the university on a stable financial basis by designating permanent and fixed source of revenue for the university and freeing the institution from the uncertainty of relying upon special appropriations voted at each session of the legislature.

COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

The College of Agriculture and Mechanic Arts has had a year of steady progress, in spite of the same interruptions that have been experienced by all educational institutions since the entrance of our country in the war. The requirement for admission has been raised one year, giving a distinctly older and more serious tone to the whole student body, but resulting in a lower total enrollment, 204 in place of 290 last year. The college was again called upon to supply manual training teachers to fill the gaps in the teaching force of the public school system, gave up students who went into the extension work of the United States Experiment Station as agricultural agents, furnished a full quota of candidates for three training camps for officers, and suffered the most serious loss when eight of the faculty resigned in one week, six to go into the training camp, one into the Young Men's Christian Association work, and one to be director of the Insular Experiment Station. All members of the senior and junior classes of sugar chemists were sent out to help in the labora-

tories of the sugar companies, and without exception have done well. In short, there has never been a time when the training given at the college received such recognition and when the demands for its men were so far beyond its power to fill. Naturally, this demand has reacted favorably on the student body, as a very practical demonstration of the monetary value of thorough work.

Of the three forms of activity in which colleges of this character are engaged—instruction, research, and extension—only the first is properly the function of the college as at present organized. The Federal and Insular Experiment Stations in Porto Rico are each distinct organizations to which the functions of research and extension naturally belong. The importance of instruction in agriculture, particularly in a country where lack of other resources makes the land the sole basis of wealth, is so great, while the funds available are so limited, that attention has been directed to this end.

Experimental work has been carried on in testing vegetables under tropical conditions, in raising Belgian hares as a possible cheap meat supply for the tropics, in poultry, which plays such an important part in the food supply of all warm countries, and in forage and cover crops. In March a very successful three days' agricultural congress was held in connection with the United States Experiment Station, the Insular Experiment Station and the Food Commission to arouse the interest in a greater food supply grown in the island.

CERTIFICATES, DIPLOMAS, AND DEGREES GRANTED.

Rio Piedras department:

College of Liberal Arts: B. S. in chemistry-----	1
College of Law: Bachelor of law-----	13
Normal Department:	
Four-year course diplomas -----	42
Rural teachers' certificates-----	30
High-school diplomas -----	51
Total -----	137

College of Agriculture and Mechanic Arts:

B. S. in agriculture-----	2
B. S. in civil engineering-----	3
B. S. in mechanical engineering-----	1
B. S. in sugar engineering-----	3
Subcollegiate diploma in agricultural science-----	8
Subcollegiate diploma in polytechnic science-----	12
Total -----	29
Grand total -----	166

EDUCATION IN THE CANAL ZONE.

[Summarized from the report of A. R. Lang, superintendent.]

New concrete school buildings at Ancon, Balboa, Pedro Miguel, Gatun, and Cristobal were completed October 1, 1917, but late arrival of school furniture and quarantine at various parts because of prevalence of whooping cough and measles delayed their opening. The enrollment for both white and colored schools, as also the total number of teachers employed, showed a steady increase over those of the two preceding years. The growth of the system is shown by the following-named new positions, authorized for the school year 1917-18:

Supervisor of upper grades, \$2,400 per year (recreated).

Instructor of apprentices, \$2,100 per year.

Teachers (two) of science and mathematics, high school, at \$159.50 per month, each.

Teacher of Spanish and French, \$104.50 per month.

Director of music, \$175 per month.

Manual-training teacher, \$159.50 per month.

Teacher, high school, \$132 per month, effective October 22, 1917.

Teacher, grade, \$104.50 per month. (Seven; one abolished and one high-school position at \$132 created October 22, 1917.)

Other signs of progress are:

(1) The entrance salary for grade teachers was increased from \$95 to \$104.50 per month, effective at the opening of the school year; high-school teachers from \$120 to \$132; and science and mathematics teachers from \$145 to \$159.50.

(2) The eleventh and twelfth grades were added to the Cristobal High School, and the eighth grade was added to the Pedro Miguel white school.

The usual physical examinations of pupils in the white schools were made during the week beginning October 27, and showed the following results:

Total number of pupils examined.....	1,303
Number found needing treatment	679
Percentage of those examined needing treatment.....	52
Number with teeth as only defect.....	341
Number with defects other than those of teeth only.....	338
Defects found	790
Defects of vision.....	77
Defects of hearing.....	11
Nasal breathing.....	32
Hypertrophied tonsils.....	167
Pulmonary disease.....	5
Bronchitis.....	3
Chorea or other nervous disorders	4
Orthopedic defects.....	3
Malnutrition.....	2
Defective teeth	411

Defects found—Continued.

Contagious diseases	5
Enlarged cervical glands	27
Cardiac disease	13
Total number of cases treated	164
Number of pupils vaccinated	89

Work was carried on during the year in the revision of the courses of study in both white and colored schools, which will be put into effect for the year 1918-19.

Night schools at the Balboa High School were started on February 19, 1918, the following subjects being taught: Shorthand, typewriting, bookkeeping, algebra, geometry, English, and Spanish. Tuition was \$4 per month, and salaries of teachers \$4 per night.

Junior Red Cross work was carried on extensively in the white schools, and a Junior Red Cross Auxiliary was organized in each white school and did good work, raising \$640 to be used for materials. School entertainments and dances were held for the benefit of the Red Cross; the Industrial Arts Schools cooperated with the Red Cross work and food conservation; and the manual training classes made boxes for packing local Red Cross material to be sent abroad. According to the report of the secretary of the Junior Red Cross, \$27,167.50 was invested in Liberty Bonds, War Savings Stamps, and Thrift Stamps.

The Junior Four Minute Men speaking contests were carried on successfully in connection with the work in English. The pupil who made the best speech became a Junior Four Minute Man and was awarded an appropriate certificate. The flag salute, patriotic songs, etc., were used daily. Flags were displayed at each school and in each classroom. Patriotic posters were displayed in every school.

"Lessons in Community and National Life" (prepared by the United States Bureau of Education and used in all grades above the third, including the high school) and thrift and war savings problems were incorporated into the work of the schools in such subjects as arithmetic, reading, history, English, geography, and current events. Examinations in the subject matter covered by Lessons in Community and National Life were given at the midyear and also at the end of the school year. It was the aim to correlate these problems with the different subjects in the schools the nature of which has inspired the pupils to better results.

Circulars have been issued to parents and guardians requesting that they cooperate with the schools in inspiring thrift and patriotism, and to teachers urging the importance of this kind of work.

The High School of Balboa continued its successful career, 89 pupils, including the class of 1917, having been graduated from it. The annual high-school play was given at the different Young Men's Christian Association clubhouses and at Camp Empire.

Manual training and household arts classes were carried on at Cristobal for the Cristobal and Gatun pupils.

SEWING WORK.

The business of providing suitable industrial training in the zone is difficult because of the scattered condition of its population. In order that results on a par with those of the modern industrial schools of the States may obtain, plans are under way for erecting and equipping buildings and providing instructors for each of the two terminal towns. When these are available, every child from the sixth grade on will share in the advantage that will come of having an institution of the most approved type. As the study of the conditions under which the courses of instruction must be developed continues, obstacles must be overcome; and new problems, unusual to teachers who are likely to be drawn to this locality, must be solved.

No better results could be achieved, and to no better use could the cooking department be put, than solving the new native produce question. This would be an ideal locality in which to conduct an agricultural center, with the boys in the fields producing the crops the year around and the girls cooking and studying food preparation from a scientific viewpoint.

Contrary to what might be expected, a big demand has been created for the pieces of furniture that add to the comfort and appearance of the homes, and altogether there seems to be no end to the possibilities of the industrial department. During the year much attention has been given to the organization of the manual training course in a way that would acquaint the students with the working methods of the shops. Satisfactory results also come of requiring them to give some time to the making of articles of equipment for the schools, the salient features being the promotion of responsibility for the welfare of the department, appreciation of expenditures for its upkeep, and the discouraging of selfishness. In this way employment is afforded those students who can not pay for, or who can not decide to make, furniture for themselves. As a result considerable school equipment of superior grade was turned out. Drawings, tracings, and blue prints for the proposed industrial school buildings at Balboa and Cristobal were made. There are other lines of industrial work rich in cultural and practical value to students and the community which should be given consideration.

The steady growth of the apprentice department has been noteworthy, as shown in the following table:

Enrollment according to trades and school grades.

Trades.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.	Total.
Boilermakers.....		2	1	1		2	1			7
Blacksmiths.....				1		1				2
Cabinetmakers.....		1				1				1
Coppersmiths.....				1						1
Draftsmen.....					1					1
Electricians.....					1					
Machinists.....		2	5	3	3		2			17
Molders.....		1	1						2	2
Pipefitters.....		2			1		1			4

Physical training and athletics were continued in all the white schools. In almost all the white schools monthly fire drills, under the supervision of the Panama Canal Fire Department, were held.

The following table summarizes the comparative educational statistics for the years ending June 30, 1915, 1916, 1917, 1918:

Comparative statistics.

Items.	1915	1916	1917	1918
Number of school buildings.....	15	16	19	17
Buildings erected and converted.....	4	1	3	.....
Additional rooms constructed (additions to existing buildings).....	2	4	1	1
Number of employees in division.....	65	60	70	81
Number of supervisory force.....	1	1	2	3
Total expenditures (approximate).....	\$100,000	\$70,188.56	\$87,000	\$140,000
Estimated value of school property.....	\$120,000	\$110,000.00	\$100,000	\$550,000
Net enrollment:				
White schools.....	1,146	1,366	1,518	1,764
Colored schools.....	1,430	785	855	1,010
White and colored.....	2,576	2,149	2,373	2,774
Per capita expense of maintenance (approximate), based on net enrollment.....	\$42.31	\$32.66	\$38.66	\$50.83
Total days of attendance.....	283,988.5	258,244.0	295,887.0	350,619.0
White schools.....	157,537.0	183,206.0	209,782.0	239,527.5
Colored schools.....	126,451.5	75,038.0	83,915.0	111,091.5
Average daily attendance.....	1,762.2	1,501.4	1,709.2	1,963.2
White schools.....	1,006.3	1,065.1	1,212.6	1,322.9
Colored schools.....	755.9	436.3	496.6	640.3
Absence of teachers on account of sickness, days.....	217	181	234.5	312.5
Average monthly wages of teachers:				
White.....	\$98.78	\$98.84	\$109.52	\$125.58
Colored.....	\$59.75	\$60.56	\$65.00	\$67.67
Tuition collected.....	\$1,184.00	\$2,562.32	\$3,510.19	\$4,364.64

THE VIRGIN ISLANDS.

[FROM THE REPORT OF THE SCHOOL DIRECTOR FOR THE YEAR ENDING JUNE 30, 1918.]

There are only two classes of schools in the Virgin Islands—the public and those still maintained by the Roman Catholic Church. The public schools comprise those situated in the towns of Charlotte, Amalie, Frederiksted, and Christiansted, as well as the country schools formerly conducted by the Moravian Church, which for a short period were subsidized by the United States Government, but have now been formally transferred and become a part of the

public school system. The former Danish school director continued under our Government until July 1, 1917, when the present director assumed charge.

There are now 19 public schools organized in the Virgin Islands, with 80 teachers and about 2,500 children. There are 18 private schools maintained by the Roman Catholic Church, with 44 teachers and 1,364 children. The average salary received by the public school teachers is \$17.03 per month, having recently been increased from \$13.15. All teachers are natives. The director of schools for the islands states that his work has been greatly handicapped by reason of lack of books and equipment, practically none of which are available. An examination of the outline of the course of study shows the work planned almost entirely from the academic standpoint, industrial and vocational work receiving comparatively little attention. The survey of the actual school system has also shown clearly that to inaugurate a proper system of public education in the conditions of extreme poverty and ignorance generally prevailing, to purchase land, erect necessary buildings, provide furniture and other equipment, and engage teachers of satisfactory capacities, will require not less than \$300,000. Such a system, to be adequate and to effect the sorely needed improvements in the life of the people, must carry education beyond the elementary stages, so that what native talent there is in the people may have an opportunity to develop along agricultural, industrial, and business lines. It is also plainly essential that a normal school be established as early as possible, in order that native teachers may be developed under American instructors.

HAWAII.

By HENRY W. KINNEY, Superintendent.

During the past two years the school population of Hawaii has increased with considerably rapidity, the increase during the school year ending in June, 1917, being 6.9 per cent, while that for the school year ending June, 1918, was 6.4 per cent. During the same two years the pupils attending the public schools of the Territory have increased in number from 30,205 to 34,343.

To meet the needs occasioned by this increase a number of additional teachers have been employed. The total number of teachers in June, 1916, was 804, and in June, 1918, it was 967.

While the number of the teachers obtained from the Territorial Normal School has approximated 50 annually, it has been necessary to secure a greater number of additional teachers from the United States. The department has been fortunate in establishing close relations with the prominent universities and normal schools on the

Pacific coast, and, as a result, nearly all the teachers who have come to Hawaii from the United States during the past two years have been graduates of these institutions. It has been found advantageous to employ this method of securing teachers, as a better class is secured through the conscientious and responsible heads of institutions than could possibly be obtained through other means.

Some teachers are obtained from those who attend the summer school held annually in Honolulu, a four-week course open to those who pass the eighth-grade examination. From those who pass the summer-school examinations are drawn the teachers placed in the small schools of the remote regions, to which better-trained teachers refuse to go, owing to isolation and similar conditions. The department does not feel that this method of certification is satisfactory, owing to the manifest lack of both academic and professional preparation, but, until the normal school furnishes a greater number of graduates, it will hardly be possible to avoid employing this means. It is also hoped that the time is coming when the normal-school course may be made more exacting, but it seems as if the conditions resulting from the war, particularly the scarcity of qualified teachers, may postpone this step.

The department has, nevertheless, for the past two years been able to reduce greatly the percentage of teachers without adequate certification. This is due largely to the fact that the legislature of 1917 so increased the school appropriation as to raise teachers' salaries from 5 to 15 per cent.

The high schools in the Territory have increased quite rapidly, the number of such pupils in June, 1916, being 444 and in June, 1918, 625. The number of high-school teachers during the same period has increased from 32 to 42. The department is working toward establishing absolute uniformity in the high schools under its control, and, with this end in view, uniform textbooks were adopted in June, 1918. During the school year beginning September, 1918, 57 high-school teachers will be employed.

The normal school in Honolulu will be enlarged by the addition of a 12-room training school unit, and the number of teachers employed in the normal school will be 48, as against 32 employed in June, 1918, and 25 in June, 1916.

The most conspicuous feature of the Hawaiian school system is the diversity of nationalities found in the public schools. The summary showing the total is given below:

. *Enrollment in the Hawaiian schools, by nationalities.*

Hawaiian-----	3, 216
Part-Hawaiian-----	3, 805

Enrollment in Hawaiian schools, by nationalities.

American	849
British	108
German	126
Portuguese	5,001
Japanese	15,101
Chinese	8,305
Porto Rican	1,032
Korean	409
Spanish	489
Russian	125
Filipino	626
Other foreigners	151
Total	84,343

In the schools no cognizance is taken of race, and it is surprising, especially to strangers, to note how very little influence the race problem has upon the school system. As a matter of fact, the department maintains that its task is the blending of its heterogeneous population into one harmonious and intelligent body politic.

During the past two years the emphasis placed on vocational training has continued, although it is, owing to war conditions, veering to some extent from the shop to the field and garden. Nearly all the large schools of the Territory now have well-equipped shops in charge of specially trained teachers. The schools had also conducted school and home gardens on a large scale, initiated even before the war began. This was an excellent foundation on which to take up the home production which the war placed upon the shoulders of the school communities. In no place in the Union is self-help, particularly as expressed in the home garden, so important as in Hawaii, which, by this means, is able to reduce greatly the quantity of imports from the mainland. As every ton of home-grown product means the saving of a 2,100-mile transportation from San Francisco, the children of Hawaii have had this matter particularly impressed upon them. There is probably not a school in the Territory which does not possess a garden, and practically all the school children who have attained suitable age have numerous home gardens as well. Thus, 132 schools have home gardens totaling 9,692.

The number of school kitchens in which domestic science is taught by specially trained teachers and which serve 2½, 5, and 10 cent lunches to the school children is steadily increasing. While the war has taken away so many of the young men from the force that the instruction in the shops and possibly in agriculture will be seriously impaired, the kitchens will go on as usual. The vocational instructors are obliged at present to do classroom work as well as vocational work, owing mainly to the lack of funds in the vocational

appropriation, but it is the hope of the department that these teachers will soon be able to devote their entire time to strictly vocational work.

In this connection it may not be out of place to mention the fact that the public-school children have taken a very active and very productive interest in the activities occasioned more or less directly by the war. Stamps and liberty bonds have been bought in large quantities by pupils and teachers, and Red Cross units have been organized in practically all the schools having children large enough to furnish assistance of value. A large number of articles needed by the Red Cross have been prepared, and on the whole the war has undoubtedly done much toward fostering the spirit of united Americanism among these children of many races and nationalities.

The increase in school population has made it necessary to add materially to the school plant. While additional grounds have been annexed in a number of places, and while the legislature of 1917 made special appropriations for the enlargement of a number of the principal schools in Honolulu, the securing of additional areas will still be one of the principal problems of the department during the coming biennium.

While the counties remain in control of actual school construction, and the department has only the power of approval or disapproval of plans, this system of dual control has, in the past two years, been administered more efficiently than might be expected, owing to the cooperation which has existed between the various counties and the department. The task of construction has been simplified by the use of standard types of buildings. One of these, a bungalow type, has served well in the past where it was necessary to provide a serviceable building at the minimum of expense, but the department hopes that during the coming biennium it will be possible to abandon or at least improve this type. On the whole, the school buildings constructed during the past two years have been adequate and up to date as far as lighting and space, ventilation, seating capacity, etc., are concerned, but these buildings have been made extremely plain, owing to the lack of money, and it is to be hoped that the coming legislature will provide funds to build structures which will be more of a source of pride to the community and of inspiration for the pupils.

It should be added that the comparative lack of funds for school construction is due mainly to the tremendous increase in the cost of construction. The price of materials has advanced enormously, as it has elsewhere, but, in addition to this, Hawaii has had to contend with the tremendous advance in cost of ocean transportation, which is a serious matter, as practically all the material, such as lumber, hardware, cement, etc., has to be transported over 2,000 miles.

It is fortunate that it has been possible to improve the conditions in many of the country schools by the construction of dwellings for teachers, so that now practically every school in the Territory, with the exception of those located in Honolulu and Hilo, has on its grounds cottages for the teachers. This has made it possible to secure in many of the country schools a class of teachers superior to that employed when no adequate lodging facilities existed. In some of the counties it has been possible to have furniture for these cottages manufactured in the school carpenter shops, and it is hoped that during the next biennium all the teachers' cottages will be provided, at least to a very great extent, with serviceable furniture.

The public schools are notoriously lacking in toilet facilities, and the providing of such will be one of the problems of the next biennium.

The school for the care of defectives has increased in size from 1 teacher and 13 pupils in June, 1916, to 6 teachers and probably about 50 pupils in September, 1918. The department is now looking for a site in which to establish an institution permanently, and there is available an appropriation of \$35,000 for teachers and buildings for the present biennium. While at present deaf, dumb, blind, and mentally defective children are taught in the same institution, it will undoubtedly be advisable, when the number of pupils justifies the step, to divide the present institution into two separate units—one for the mentally defective and another for those having other defects. At present only pupils are taught who can come to school alone or who can be reached by means of an automobile provided for their transportation. The institution should, however, be provided with facilities for boarding children from the other islands.

A school for tubercular children exists in Honolulu, and another may be established on one of the other islands in the near future.

Several ungraded rooms for the instruction of backward children have been provided in Honolulu, and during the coming term an experiment will be made whereby a coach will be provided to instruct children who are backward in one or two subjects in the afternoons and on Saturdays. If this plan is found successful, it will be more generally used.

Medical inspection in the schools has been extended. This work is under the control of the Territorial board of health.

By means of a fund raised by private subscription, it has been possible to feed a number of poorly nourished children, and in some schools careful records have been made of weights and measurements.

A new primer, particularly adapted to the needs of the pupils of this Territory, has been compiled by a committee of teachers and is now in the process of publication by the printing class of the normal school. These books are to be issued to the schools as sup-

plementary readers until it has been determined whether they are altogether suitable for general adoption.

A special examination of the German textbooks used in the high schools has been made, and several which were considered as being of a questionable character have been eliminated.

All teachers in the public-school service have been required to sign the following pledge:

The principal function of the public schools of the Territory of Hawaii is to produce loyal American citizens.

Good American citizenship is more important than scholarship.

The Department expects all its teachers to express themselves positively in teaching loyal Americanism.

Will you do this?

Answer this question "Yes" or "No."

Answer _____

Signature _____

The attendance in the public schools continues to be extraordinarily good, as the following record will show:

	Per cent.
June, 1916-----	93.4
June, 1917-----	93.8
June, 1918-----	93.8

The wonderfully fine climate of the Hawaiian Islands is, to a very great extent, responsible for this condition.

The outlook of the school year beginning September 1, 1918, is rather discouraging, owing to several conditions which have arisen on account of the war. A number of the male teachers have entered the Army. This deprives the department of many of its best young principals, and will materially hamper the work in its carpenter shops and along agricultural lines. Thus it will be necessary to have vocational instructors who will visit one school one day and another the next, whereas, in the past, it has been possible to have one instructor for each large school. A number of the young women in the service have married officers of the Regular Army garrisons in Hawaii, and have left for the mainland with the exodus of regular troops. A number of married women teaching in the schools in the outside districts have left for Honolulu, owing to the fact that their husbands have been drafted in the regiments consisting of local men, which have all been stationed on the Island of Oahu. As a consequence, the number of teachers leaving the service has been unusually large, and the difficulty of securing others from the United States to take their places has been greater than usual. A further difficulty has arisen from the fact that a number of the steamers plying between San Francisco and the islands have been withdrawn from the service, and teachers wishing to come to the islands have found it very difficult to secure transportation. Despite these ob-

stacles the department expects to bring about 150 teachers from the United States, to which number should be added 56 graduates of the Honolulu Normal School, who will also enter the service this year.

THE PHILIPPINE PUBLIC-SCHOOL SYSTEM.

By W. W. MARQUARDT, Director of Education.

ORGANIZATION OF THE BUREAU OF EDUCATION.

During the school years 1916-17 and 1917-18 no important change took place in the organization of the public-school system. The system is a highly centralized one, the director having charge of all public schools in the islands. In certain matters of policy his action is subject to the approval of the secretary of public instruction. Besides the director, there is an assistant director, a second assistant director, a general office force, and a field force.

The work of the general office is in charge of the chiefs of the following divisions: Academic, accounting, industrial, property, and records.

In the field the division superintendent of schools is directly responsible to the director of education. He supervises the schools of a Province, and under him are usually a supervisor of academic instruction, one or more supervisors of industrial instruction, a high-school principal, and several supervising teachers.

The division is divided into supervising districts, each in charge of a supervising teacher who has control of primary and intermediate schools within his district. There are 48 divisions and more than 300 supervising districts.

FACTORS OF SUCCESS.

Whatever success has been achieved in the Philippine public-school system has been due largely to the fact that a centralized system has been established under the control of professional educators. The future development and progress of the public schools will depend upon whether or not this policy is continued.

SCHOOLS AND PUPILS.

There was no increase in the number of primary schools and a very slight increase in the number of secondary schools, whereas the number of intermediate schools grew rapidly because intermediate schools are supported almost entirely by tuition fees. If inter-

mediate schools had depended upon governmental revenues, no increase could have been made.

Increase in school attendance.

Attendance.	Primary.	Interme-diate.	Second-ary.	Total.
Schools:				
1917-18.....	4,276	423	48	4,747
1916-17.....	4,283	368	46	4,702
Annual enrollment:				
1917-18.....	592,563	64,306	14,529	671,398
1916-17.....	607,682	56,884	11,432	675,998
Average monthly enrollment:				
1917-18.....	499,986	56,592	12,897	569,475
1916-17.....	507,226	50,306	10,093	567,625
Average daily attendance:				
1917-18.....	465,754	53,232	12,391	521,377
1916-17.....	457,383	47,280	9,650	514,263
Percentage of attendance:				
1917-18 per cent.....	91	94	96	92
1916-17 per cent.....	90	94	96	91

The annual enrollment for 1917-18 was a little less than for 1916-17; the average monthly enrollment, slightly larger; the average daily attendance, 7,114 greater; and the percentage of attendance, larger. Although the percentage of attendance increased, the fact that 24 per cent of the pupils dropped out of school during 1916-17 can not be overlooked. In other words, only 76 per cent of the pupils enrolled during the year were eligible for promotion at the close of the year, in March. During the past five years there has been an increase in the percentage of pupils held in the schools throughout the year, but during the last two years the increase has been slight. Taking into consideration the fact that there is no compulsory attendance law in the Philippines, these data are not discouraging. It is unquestionably true that the public schools have cultivated a desire for education, as is evidenced by the demand for schools and the increased regularity of attendance.

One encouraging feature of attendance figures is that the proportion of girls to boys in the public schools, especially in the higher grades, is increasing. The oriental attitude toward education of women is being gradually overcome, and at present nearly 40 per cent of the total number of pupils in school are girls. The greatest difficulty has been experienced in keeping girls in school after they finish the primary grades and even until they finish the primary grades. Statistics show, however, that the proportion of girls in higher grades is gradually increasing. Comparison of figures of attendance of boys and girls in intermediate grades for the school years 1910-11 and 1916-17 shows that the increase in attendance of boys was 82 per cent, while that of girls was 222 per cent. In the high schools the figures for boys was 250 per cent, and for girls 267 per cent. These data indicate that an increasing number of girls are

no longer content with a primary education. With the introduction of the new secondary course in housekeeping and household arts, it is believed that a proportionate increase in the number of girls in the high schools will take place.

Extension of school facilities among natives has gone on rapidly. The Philippine Legislature was liberal in the appropriation of insular funds for this purpose. Consequently, the number of schools for natives and the attendance on them increased greatly. Special attention was given to adapting the instruction to the varying needs of these people. Agricultural training was emphasized in practically all new schools opened for them.

At present less than one-half of the school population of the Philippine Islands enjoy educational advantages, and no adequate remedy for this deplorable condition is possible without making provision for increased sources of school revenue. For several years the director of education has tried to impress upon the Philippine Legislature the great need for legislation which would provide increased school revenue. Although it is believed that such legislation would have the support of the Filipino people, and although most of the legislators proclaim their support of the public schools, no remedial legislation has yet been secured. During the 1916-17 and the 1917-18 session of the legislature the director of education presented certain bills and conducted press campaigns in an endeavor to arouse public opinion to support them. The bills proposed were permissive and not mandatory, and were designed to give provincial and municipal governments discretion as to whether they should levy increased taxation in the form of an additional rate upon land values or of an increase in poll tax, or both. Nothing, however, was accomplished. In view of the present prosperous condition of the Philippine Islands, there is no reason why legislation should not be enacted to provide school funds sufficient greatly to extend the system of primary schools.

Since the above words were written, they have been fulfilled to a remarkable degree. In February, 1919, 30,000,000 pesos (\$15,000,000) was appropriated by the Philippine Legislature to extend free education to all the children in the islands.

Of the effects of this, Acting Gov. Gen. Yeater says, in his report:

This act is of prime importance, not only because it provides funds for a term of years sufficient to extend a primary education of seven grades to all the children of school age, but also because it enables the [Philippine] bureau of education to prepare and carry into execution a complete and systematic development of the existing excellent educational plan, which lacked only extension over the entire field. Furthermore, it is a means of incalculable value for the welfare of the Filipino people, since it will banish illiteracy, establish permanently English as the common language of the land, afford a

firm foundation for democratic institutions, and insure order and stability to the insular government.

The adoption of this thoroughly American educational measure will tend greatly to lift the moral responsibility incumbent on the United States to secure a firm and orderly government, and aside from the differences of opinion which may have existed among American statesmen in the past it has been advocated by all Americans from the beginning of the occupation that universal free education of the masses should be an essential characteristic of our national policy in the Philippines. Inasmuch as when Congress considered paragraph 2, the acts of July 1, 19, and of August 29, 1916, much discussion was had about the political capacity of the Philippines, I feel that I discharge a duty of conscience to call your attention to the fact that this enlightened measure was passed by the legislative department of the government, which, as you know, is composed entirely of Filipinos. By this law of universal free education the all-Philippine Legislature in the last two years has provided for doubling the quantity of the educational work effected in almost two decades of previous American occupation. Under the financial support previously given, it was necessary to turn away from the doors of the schoolhouse one-half of all the children of the islands. In five years all the children of the land will receive educational advantages. Besides this, the salaries of all municipal teachers will be increased 30 per cent.

In addition, I direct attention to the fact that at the session of 1917-18 two normal schools were established, and two more were established at the session just adjourned, all to be located by the secretary of public instruction, making, with two already existing, six such schools; also, four agricultural schools were established in the session of 1917-18, and three more this year, making 17 in all. The college of agriculture has just had its appropriation largely increased, and an experiment station has been established in connection with it. The appropriation of this year for the university far exceeds any former appropriation. In addition to all this, the appropriation to the bureau of education for this current calendar year exceeds by 3,000,000 pesos any former appropriation. Furthermore, legislative appropriation was made for pensioning 150 young men and women to be trained as specialists in the colleges of America and elsewhere, and they are expected to sail in August next.

The heroic and unselfish work of American teachers, many of whom lost life or health, deserves and should receive the very highest praise, but it would be particularly unjust and unfair for me as head of the department of public instruction not to recognize and make known the work of Filipinos in this regard. Of the present teaching force of over 14,000, less than 3 per cent are Americans. The number of American teachers is gradually growing less as Filipino teachers are trained to take the important positions which they hold.

PHYSICAL EQUIPMENT OF THE PUBLIC SCHOOLS.

The past two years marked great improvement in the equipment of public schools, especially in regard to school furniture. There was also an increase in the number of school sites and school buildings.

The number of school sites for 1916 was 2,623, and for 1918, 2,824. Considerably more than one-half of these sites are first class, according to the classification below.

A. FIRST-CLASS SITES.

1. A minimum area of one-half hectare for every 200 pupils of the annual enrollment or fraction thereof up to 2 hectares for 800 pupils or more is required.
2. The site must be well located and easily accessible.
3. The site must be well drained and sanitary.
4. The topography must be such that a satisfactory athletic field can be laid out.
5. The soil must be suitable for gardening.

B. SECOND-CLASS SITES.

1. A minimum of one-fourth hectare for every 200 pupils of the annual enrollment or fraction thereof up to 1 hectare for 800 pupils or more is required.
2. An insanitary site or one entirely unfit for gardening and athletics should not be considered second class.

C. THIRD-CLASS SITES.

1. All other sites come under this head.

Conditions brought about by the World War have greatly increased the cost of construction of all types of buildings, especially of the standard reinforced concrete structure, the type of permanent building commonly erected for school purposes. Construction of this type of building has continued, however, because relief from high costs of materials can scarcely be expected for some years, and the additional prosperity tends to lessen the burden of increased cost of construction. In 1917, 840 buildings, 448 of which were of reinforced concrete, were classed as permanent, while in 1916 only 757 were so classified.

The greatest advance in physical conditions during the last two years took place in the equipment of schools with suitable school desks and other furniture. At the close of the school year 1917-18 there were comparatively few Provinces in which any large proportion of pupils were without desks. In the campaign to provide each pupil with a desk of approved type, the provincial trade schools and school shops rendered valuable service and in addition constructed teachers' tables, bookcases, and other school furniture.

TRAINING AND WELFARE OF TEACHERS.

Facilities for training teachers both before and after they enter the teaching service were materially increased during the past two years. Attendance in the higher classes of the Philippine Normal School greatly increased, and the total number of graduates from this institution for the last three years is greater than the total number of graduates for all preceding years.

The Philippine School of Arts and Trades continued to turn out teachers of woodworking and mechanical drawing, and the Central

Luzon Agricultural School sent out a large number of teachers to agricultural, farm, and settlement-farm schools. These teachers were scattered throughout the archipelago, but nearly 500 of them went to the Department of Mindanao and Sulu, where many new settlement-farm schools have been opened. This body of teachers represented practically every Province in the Philippine Islands; and their harmonious cooperation is a significant development in education and in the problem of the final unification and nationalization of the people of these islands.

At the beginning of the school year 1916-17 a four-year normal course was organized in five large provincial high schools. At the same time the course of study in the Philippine Normal School was revised so that only students who had completed the first year of the regular high-school course were eligible for entrance. The Philippine Normal School now gives a special one-year course for supervising teachers and principals in addition to its courses in academic, industrial, domestic science, and physical education. In 1917 a two-year normal course was outlined and put into effect in two or three high schools where the complete secondary course was not offered.

The legislature in 1917 appropriated \$150,000 for the establishment of two new normal schools, one in northern Luzon and one in the Visayas. Large sites for these schools have been secured and construction is expected to begin soon.

The college of education of the University of the Philippines now has a larger attendance than ever and is supplying teachers for secondary work. It is evident, however, that this institution can do little toward supplying enough secondary teachers when the average attendance of secondary students is more than 12,000 and when the yearly increase is so great that the attendance almost doubles every three years. At present, the problem of securing suitable secondary teachers is acute. Due to the war it is impossible and undesirable to get young men from the United States; and while a certain number of women teachers have been secured, not enough are now (August, 1918) available properly to supply the teaching force for the secondary schools.

A rather complete system for the training of teachers in service has been developed, because a large proportion of teachers have had little or no actual training in normals or other schools for the preparation of teachers. During each of the school years 1916-17 and 1917-18 about 800 selected teachers from all divisions attended for a five-weeks' period the teachers' vacation assembly in Manila, where primary and intermediate methods and the latest developments in industrial work were emphasized. Upon returning to their divisions the teachers who attended the assembly in Manila became instructors

for four weeks in division normal institutes for division teachers. The assembly in Manila, and the division institutes which followed, were of the utmost importance in the improvement of the character of academic and industrial instruction. A professional reading course for all intermediate teachers has been outlined for the present school year.

Other agencies used for improving the quality of teachers are: Visiting days, which have become a feature of school work in practically all divisions, and teachers' meetings of various kinds.

The teachers' vacation assembly, held in Baguio during April and May of each year and attended by American and Filipino teachers and supervisory officers, is also an important factor in improving school work. Conferences lasting a week each were held (1) for teachers and principals of intermediate and high schools, (2) for supervising teachers, and (3) for industrial teachers. Following these conferences was the convention of division superintendents.

Classes for Filipino supervising teachers were also held in Baguio. In 1918 for the first time model classes were conducted in connection with these classes. Model classes henceforth will be the most important feature of the teachers' vacation assembly in Manila and of the division institutes.

A determined effort has been made to increase salaries of teachers of all grades. This has been merely a matter of justice, since the cost of living has increased greatly. The salary increases which the director was able to give teachers on the insular pay roll and the increases which division superintendents were able to give municipal teachers are not considered sufficient compensation for the great majority of teachers in the service.

During the past two years the matter of raising salaries of municipal teachers was taken up with division superintendents with the idea of making the minimum salary \$10 per month and with the intention of increasing this to \$12.50 a month at the earliest possible date. A \$10 minimum salary has been fixed in nearly all divisions and the legislature will be requested to appropriate funds to make a \$12.50 minimum salary effective. The average salary of municipal teachers in March, 1916, was \$11.44, and in March, 1917, it was \$11.99. In January, 1918, the average was about \$18.50. Returns for March, 1918, show the following in regard to salaries of municipal teachers:

Percentages of teachers receiving various monthly salaries:

	Per cent.
Less than \$10.00-----	12
\$10.00 to \$12.49-----	51
\$12.50 to \$14.99-----	14
\$15.00 to \$17.49-----	9
\$17.50 to \$19.99-----	4
\$20.00 to \$22.49-----	5

All regular teachers whether municipal or insular receive salaries for 12 months a year. The average salary of insular teachers has been increased from a little more than \$27.50, in 1916, to something more than \$30 per month at the present time. At the convention of division superintendents in May, 1918, the following salary schedule was recommended for municipal teachers:

Minimum salary.....	\$12. 50
30 per cent of teachers.....	\$12. 50 to \$14. 99
30 per cent of teachers.....	\$15. 00 to \$17. 49
15 per cent of teachers.....	\$17. 50 to \$19. 99
15 per cent of teachers.....	\$20. 00 to \$22. 49
5 per cent of teachers.....	\$22. 50 to \$24. 99
5 per cent of teachers.....	\$25. 00 or more.

While this schedule is not ideal, it sets an aim much in advance of that which can be attained with sources of school revenue as they now are.

TEACHERS AND THEIR WORK.

The number of teachers on duty in March of each of the last three years is shown below:

Teachers.	March—		
	1916	1917	1918
Americans.....	506	477	411
Insular.....	1,279	1,301	1,389
Municipal.....	9,138	10,336	11,484
Apprentice.....	40	99	2
Total.....	10,963	12,303	13,286

The number of American teachers has decreased nearly 100, the number of insular teachers has increased 110, and the number of municipal teachers has increased at the rate of more than 1,000 a year.

The following table shows the number of teachers assigned to various duties in March of each of the last three years:

Teachers.	March—		
	1916	1917	1918
Primary.....	8,495	9,585	10,447
Intermediate.....	1,104	1,339	1,886
Secondary.....	231	268	343
Industrial instruction and supervision.....	800	891	213
General supervision.....	303	320	340

Only two-tenths of 1 per cent of American teachers on duty in 1917 were engaged in primary work, and they were teaching in

schools attended by American children in Manila and at Army posts. Five per cent of intermediate teachers in 1917 were Americans, a decrease of more than 4 per cent since 1916. A little more than three-fourths of the teachers engaged in secondary work were Americans, and 35 per cent of the teachers doing supervisory work were Americans. The time is rapidly coming when Americans will be employed only in high schools, as provincial supervisors, and as division superintendents. Very few supervising teachers now are Americans, and all supervising teachers will be Filipinos in the near future except in a very limited number of cases.

COURSES OF STUDY.

An important change in the courses of study was the introduction of new courses in secondary schools. The primary course of study has remained practically unchanged. Few changes were made in intermediate courses, where, however, some interesting developments as regards distribution of pupils among the courses took place. The enrollment in intermediate grades by courses for March of the last three years is shown below:

Enrollment.	March—		
	1916	1917	1918
General.....	23,129	30,399	35,900
Teaching.....	7,412	3,456	1,982
Trades.....	3,582	3,510	3,000
Farming.....	1,380	1,662	1,721
Housekeeping and household arts.....	5,917	7,585	9,449

These figures show that the intermediate teaching course is dead. Practically no pupils were enrolled in this course at the beginning of the school year 1918-19. Teachers of higher attainments than the completion of an intermediate course are now available in most provinces. The table shows a large increase in the number of girls enrolling in housekeeping and household arts and a small increase in enrollment of boys in the farming course. A greater increase is expected in the farming course.

In 1918 new secondary courses were outlined. The general course and the four-year normal course were revised. Courses in housekeeping and household arts, in commerce, and in agriculture were outlined for the first time. It is not expected that these new courses will be used in all provincial high schools, but they will be given in several of the larger schools where the number of pupils and the equipment make a diversification in courses feasible.

In addition to the courses offered in provincial high schools, there are six insular schools—the Philippine Normal School, the Philip-

pine School of Arts and Trades, the Philippine School of Commerce, the Philippine Nautical School, the School for the Deaf and the Blind, and the Central Luzon Agricultural School—which offer special courses. The work of the Philippine Normal School has already been mentioned, as has also the fact that the Philippine School of Arts and Trades and the Central Luzon Agricultural School give courses of training for industrial and agricultural teachers. The Philippine School of Arts and Trades also gives courses in woodworking, ironworking, electrical wiring, plumbing, automobile operation, preparatory engineering, and surveying. The Philippine School of Commerce gives courses in bookkeeping, stenography, typewriting, and commerce. The Philippine Nautical School gives a two-year course of training to fit young men to become officers on inter-island vessels and trans-Pacific steamers. The Central Luzon Agricultural School offers, in addition to its teaching course, a course in farm management and one in the operation of steam and gas engines.

PHYSICAL EDUCATION AND MEDICAL AND DENTAL INSPECTION.

The war has directed attention to the necessity of conserving human life and of increasing efficiency. For years practically all students in Philippine public schools have engaged in some form of physical exercise, the effects of which upon the physical development of the Filipino people are distinctly apparent. During 1917-18 military training was prescribed for all boys in high schools and physical education was given a more definite place in all secondary courses of study. A complete course in physical education for primary, intermediate, and secondary grades is being prepared. When this is published, instruction will be more systematic and uniform.

Medical and dental inspection of pupils is in the hands of the Philippine Health Service, which has done valuable work along this line. It did not give to these matters all the attention needed, however, because of lack of sufficient personnel. Medical inspection has been quite general, but dental inspection has been limited to a few places. During the past year a letter was addressed to division superintendents requesting them to take up with provincial boards the matter of providing more adequate medical and dental inspection in the public schools and of securing additional nurses for public-school service. As a result increased attention has been given these matters, but conditions are yet far from satisfactory, and will remain so until there are several provincial nurses in each division—at least one municipal nurse in each large municipality—and an adequate corps of physicians to examine pupils for defects and diseases.

WAR ACTIVITIES OF THE BUREAU OF EDUCATION.

The public schools entered the food-production campaign with enthusiasm, and as a consequence the cultivated area of school and home gardens and the production of food doubled. Thus the Philippine Islands helped to conserve food for the allied forces, and in addition many Filipinos enjoyed a more varied diet.

Red Cross work was done in the schools in 1917, but this work is now being undertaken on a larger scale. In the public schools bandages for wounded soldiers and clothing for French and Belgian refugee children are being made in large numbers. A Red Cross membership campaign just ended has resulted in the enrollment of more than 12,000 teachers as senior members of the Red Cross Society, and more than 200,000 pupils as junior members. During the teachers' vacation assembly in Baguio a Red Cross drive on May 7, 1918, resulted in raising \$2,500.

American and Filipino teachers and other employees have subscribed liberally for Liberty Loan bonds. Employees of the bureau of education purchased more than \$60,000 worth of Liberty Loan bonds of the third issue, in addition to their subscriptions to the first and second issues.

ACADEMIC INSTRUCTION.

A great improvement in academic instruction took place during 1916-17 and 1917-18. This was largely a result of better facilities for training teachers and closer and more effective supervision. The appointment of a larger number of academic supervisors helped to make supervision much more satisfactory. However, much variation in efficiency of instruction still exists.

In academic instruction increased efficiency—the main factor in the promotion of pupils—was shown by the average increase of 6 per cent in promotions in all grades for 1916-17 over 1915-16. As this increase was not due to any lowering of standards, it was significant.

INDUSTRIAL INSTRUCTION.

Industrial instruction occupies an important place in the courses of study. About 17 per cent of the total time in primary grades and 18 per cent of the total time in the general intermediate course is devoted to this form of instruction. In special intermediate courses and in special types of primary schools about half of the time is devoted to industrial work. The following data give an idea of the value of the commercial output of the public schools for the school year 1917-18: Embroideries, \$12,500; laces, \$9,000; crochet, \$4,500;

sewing, \$28,000; cooking, \$3,500; basketry, \$38,000; hats, \$1,500; products of loom weaving, \$3,500; bamboo-rattan furniture, \$3,000. A large number of other articles were made in small quantities.

The value of the gross output of trade schools during the last three years follows: For 1915, \$61,418.81; for 1916, \$79,132.04; for 1917, \$106,485.12. These figures include cost of material, and therefore do not give a definite idea of the total value of work done by pupils.

Due to war conditions the total value of embroideries exported from the Philippines increased from \$162,456 in 1914 to \$1,561,214.50 for the fiscal year July 1, 1916 to June 30, 1917. A part of this increase was undoubtedly made possible by instruction given in the public schools.

War conditions have not been favorable for the production of all commercial articles in the public schools, however. The great increase in trans-Pacific freight rates has made it unprofitable to export articles the value of which is not relatively great as compared with weight and bulk. Excessive cost of transportation has thus made it necessary to abandon the making of larger and more bulky articles.

The bureau of education, through traveling industrial teachers, has fostered household centers, the members of which engaged in the making of embroidery, lace, and other articles of handicraft. The bureau of education gave up the supervision of these centers as soon as they were developed to a point where they could deal directly with business houses.

During the last year the value of school production of articles of handicraft was \$86,270 and the value of production of household centers was \$11,782. Articles to the value of \$92,200 were sold through the general sales department of the bureau of education, and local sales amounted to \$5,852.

AGRICULTURAL INSTRUCTION.

Facilities for agricultural instruction were developed and extended. The number of agricultural, farm, and settlement farm schools increased from 79 for the year 1915-16 to 138 for 1917-18. Of the increase, 9 were agricultural schools; 12, farm schools; and 117, settlement farm schools. During the same period enrollment in these schools nearly doubled, the cultivated area doubled, and the total value of production much more than doubled, having been more than \$45,000 for 1917-18.

Agricultural clubs for boys and girls were organized in 1916-17. Club projects now include gardening, cooking, chicken and hog raising, and fruit growing. At the end of the year 1916-17 club mem-

bers owned 31,538 chickens and 2,247 hogs. During 1917-18 the number of clubs increased to 1,136 and at the end of the year the number of chickens and hogs owned was 58,458 and 2,744, respectively.

An organization pamphlet and 120 lesson leaflets are now being distributed to members, and these help to direct the work and make it more effective. The work of these clubs has an important bearing upon the educational and economic development of the country. This is an agricultural country, and everything that tends to increase agricultural production brings nearer the time when all, instead of one-half, of Filipino children may enjoy educational privileges.

School and home gardens have done much to provide a varied diet and to improve living conditions. The following table shows the number of school and home gardens for the last three school years:

School and home gardens.

Gardens.	1915-16	1916-17	1917-18
School gardens.....	3,545	3,960	4,023
Home gardens.....	48,432	54,655	103,068

Garden days, 1,272 of which were held in 1917-18, aroused interest in home gardening. At these celebrations pupils and farmers not only exhibited garden products, but exhibited domestic animals as well. The bureaus of agriculture, forestry, health, and constabulary cooperated with the bureau of education in furnishing exhibits for some of the garden days. During each of the last three years approximately 100,000 shade and fruit trees were distributed to the public through public-school nurseries.

SCHOOL LIBRARIES.

In 1915 a movement was started for the establishment and development of better school libraries. The table below shows the excellent progress made:

School libraries.

	1915	1916	1917
Number of school libraries.....	349	751	1,064
Number of books acquired.....	8,588	21,020	42,696
Number of outsiders using school libraries.....	1,580	3,681	10,398

The increase in the number of outsiders using the libraries was perhaps more important than the large increase in the number of libraries and the number of books acquired. The school library prob-

lem is far from being solved when the library is established and filled with suitable books. The reading habit among pupils and outsiders must be formed. Proper use of libraries is now being emphasized in public-school work. A large number of outsiders using school libraries were once pupils in the public schools, where they undoubtedly cultivated the desire for reading.

An important step toward inculcating the reading habit was taken in 1917 when the bureau of education started the distribution twice a month of 40,000 copies of a small four-page publication known as "The Philippine News Review," which contains current events of the Philippines and of the world. In many localities this was practically the only available source of important news. The number of copies distributed was increased to 60,000 in 1918.

All secondary and a large majority of intermediate schools now have libraries. The establishment of libraries in larger primary schools is going forward rapidly. These libraries furnish interesting reading for pupils and provide professional magazines for teachers.

The following parts of Bulletin No. 44, Libraries for Philippine Public Schools, were issued in mimeographed form in 1916, 1917, and 1918: Books and Pictures for Primary Grades, Books and Pictures for Intermediate Grades, Supplementary List of Books for Primary and Intermediate Grades, Supplementary List of Books for Intermediate Grades, Supplementary Reading in Geography, Books and Pictures for Secondary Schools.

A five-weeks course in library training was offered in 1917 and 1918 at the teachers' vacation assembly in Manila, and a similar course was given at normal institutes. The new one-year course of study at the Philippine Normal School for supervising teachers and principals gives training in school library management. Division superintendents have been requested to make plans to provide each school with a teacher-librarian.

THE INFLUENCE OF THE PHILIPPINE PUBLIC-SCHOOL SYSTEM IN THE FAR EAST.

During the years 1916-17 and 1917-18 the public schools were visited by a large number of delegations from China, who studied the school system thoroughly. A commission from Formosa and a number of visitors from Japan showed much interest in Philippine public schools. Constant requests were received for publications from such countries as China, Siam, India, Egypt, Burma, Hawaii, Japan, Chosen, French Indo-China, Ceylon, Cuba, Porto Rico, Hayti, Australia, Straits Settlements, Federated Malay States, Papua, Java, Sumatra, Formosa, Newfoundland, Chile, New Zealand, and Fiji.

During this period Filipino teachers began to render service in foreign countries. Two industrial teachers were sent to Guam to

undertake the development of industrial instruction there along the same lines followed in the Philippines. A Filipino teacher of industrial work, who was furnished the government of the Federated Malay States, achieved marked success in the Malay Training College for Teachers at Malacca. Two Filipino teachers were employed as instructors in English in the mission schools of Penang.

FINANCIAL SUPPORT OF THE PUBLIC SCHOOLS.

The following table gives insular, provincial, and municipal expenditures for education from 1914 to 1916. No later data are available.

Expenditures for education.

Year.	Insular.		Provincial.	Municipal.	Total
	Instruction and administration.	Public works.			
1914.....	\$2,000,027.99	\$254,839.01	\$236,269.15	\$1,151,652.17	\$3,682,768.31
1915.....	2,087,053.27	365,594.81	221,583.48	1,082,406.85	3,757,638.01
1916.....	2,161,858.55	191,998.44	231,921.88	1,197,393.90	3,783,173.77

During these years insular, provincial, and municipal expenditures varied a little. The total of insular appropriations was between two and two and one-half million dollars; provincial expenditures amounted to about two hundred and twenty-five thousand dollars; and municipal expenditures to more than one million dollars.

Taking into consideration the increase in prices of practically all commodities, it is evident that appropriations have not been sufficient to provide for extension of public education. In fact, the number of primary schools has decreased slightly.

When the bureau of education was organized, the insular government undertook a large share of the support of public schools. At that time, however, it was thought that provincial and municipal governments would gradually assume larger responsibilities for the maintenance and support of schools. Such has not been the case, however, and provincial and municipal expenditures for public schools show relatively small increases.

For several years permissive legislation, which would permit provinces and municipalities to raise increased school revenues by taxation, has been proposed by the bureau of education to the Philippine Legislature, but favorable action has not been secured. Such action is necessary if there is to be any further extension of the public-school system. If secondary and agricultural education in the provinces is to be placed upon a firm basis, a fixed provincial school fund is necessary, and it should be not less than 10 per cent of the total provincial revenue.

WHAT THE BUREAU OF EDUCATION STANDS FOR.

The bureau of education advocates:

1. For every boy and girl a minimum educational opportunity, consisting of free attendance upon at least the four grades of the primary course.
2. For every primary graduate the opportunity to attend an intermediate school free.
3. For every intermediate graduate the opportunity to attend a secondary school free.
4. The rapid extension of opportunities to secure instruction in practical farming, especially in the type of institution known as the agricultural school.
5. English as the language of instruction, since it can, by becoming the common medium of communication, advance national solidarity and provide the best conditions for individual and national progress.
6. Physical education for all pupils as a means of developing both physical and moral strength.
7. Industrial instruction as an aid to economic development and to character.
8. A school system made thoroughly democratic by the early abolition of all voluntary contribution and tuition schools. The placing of these schools upon a business-like basis through the enactment of legislation providing increased school revenues.
9. Permissive taxation legislation which will grant provincial and municipal governments greater autonomy and will make possible the extension and improvement of instruction in all grades.
10. Liberal appropriations for school purposes by the insular government, with special provision for buildings and special types of schools.
11. Salaries for teachers and supervising officers in keeping with the educational and professional attainments required and the supreme significance of their service to the community.
12. The recognition of school supervision and teaching as professions demanding technical training and skill in no way inferior to those required in other professions.
13. Professional control of the school system by educators as the only means of retaining the confidence and support of the people and of putting into effect modern principles of business efficiency as applied to educational administration.
14. Provision by the government for the adequate training of librarians to take charge of school and other libraries and thus to contribute to educational progress through the formation of the reading habit by pupils and people.
15. Sites, buildings, and equipment suitable for conducting all school activities (physical, social, academic, industrial) in a way to achieve results worth while in each.

EDUCATION IN ALASKA.**1. ALASKA NATIVE SCHOOL SERVICE.¹**

The schools for native children in Alaska are under the supervision of the Bureau of Education of the Interior Department, being

¹ Summarised from the report of Gov. Thos. Riggs, Jr., for 1918, pp. 10-18.

directly supervised by five district superintendents in Alaska, responsible to the chief of the Alaska Division of the Bureau of Education, with headquarters in Seattle. For the past year these schools numbered 71, two of which were summer schools having a total enrollment of approximately 3,500.

The majority of these schools are located in native villages, each of which is usually in charge of a man and wife. On account of the variety of the work in connection with a native school the Bureau of Education finds it advantageous to appoint married people. Not only must these Federal employees be capable of teaching school, but they must also possess practical abilities which will enable them to promote native industries, domestic arts, personal hygiene, social welfare, and in general improve the living conditions of the adult as well as the school population of the village and the vicinity.

The schoolroom and living quarters of the employees are usually under one roof, forming a center from which quite often there issues the only uplifting and civilizing influence in that community.

There has been and still is an attitude of aloofness toward the native population by the white people of Alaska which is not conducive to rapid advancement by the former race. Quite often the bureau employees and the missionaries are the only whites who seem to have any interest in the natives' welfare. The native Alaskans are self-reliant, law-abiding, and honest, and the only help they have had from the Federal Government is the establishment of schools in the larger villages, a little medical relief, and the introduction of reindeer among the northern and western tribes. This assistance has been given them through the organization of the Alaska Division of the Bureau of Education.

Because of the fact that the native population is very scattered and the villages have rarely over 200 or 300 inhabitants, and generally much less than that, the bureau's educational efforts have been rather hampered. Were the natives located in large settlements of 500 or more, their education, medical relief, and industrial advancement would be simplified considerably. To this end the bureau has gradually been working toward attracting the natives to selected sections of land which have been reserved for the exclusive use of the natives and the bureau. These reserves are not to be confused with the Indian reservations of the States as they in no way interfere with the liberties and freedom of the native inhabitants thereon. By establishing industries on these reserves which will give the natives work the year around, schools that have more than the elementary grades, and by placing the care of their physical welfare in the hands of trained medical employees, the bureau will be able to secure maximum benefits to the natives. As long as the bureau's work is confined to numerous small villages, only minimum results can be expected at

a heavy cost per capita. At the present time the small schools do not justify grammar grades, and it has been customary for advanced native children to enter the Indian schools of the States. This usually results in physical breakdowns due to the change of climate, environment, and absence from home. It should be possible for native children to advance as far along educational lines as they desire without the necessity of leaving home. This can come only when the natives are persuaded to live in larger communities which will justify the establishment of larger and more complete schools. The concentration of the bureau's work on large villages, made possible through the favorable conditions of the reserves, will hasten the arrival of the day when the native of Alaska will take his place along with his white brother in the affairs of the Territory.

That the natives are loyal to the United States has been especially proved the past year through the work which the natives have contributed for the Red Cross and the purchases they have made of Liberty bonds and War Savings Stamps. Through the agency of the teachers, Red Cross auxiliaries have been established in many native villages, and the zealous and untiring work of these native organizations is a great credit to them. The work done in knitting, sewing, etc., for the Red Cross is equal to the best work done by white organizations. The purchase of bonds and stamps has not lagged behind the Red Cross work.

2. PUBLIC EDUCATION OF WHITE CHILDREN IN ALASKA.¹

A. INTRODUCTION.

Until very recently the public education of the white children of Alaska has received comparatively little attention. Before 1906, when the Territory was first allowed to send a Representative to Congress, education in Alaska centered upon the native population—Indians and Eskimos. Much has been written about the education of Indians in Alaska, but there has been little demand for an authentic account of them. The year 1917, however, saw so great an advance in the education of Alaska's white children that the demand for an accurate history of their education now warrants the compiling of all available definite information upon the subject.

Since the occupation of the Territory by white people, the native population has been practically stationary. The natives far outnumbered the white people until the Klondike gold rush in 1897 and 1898, and even now the latter compose only about 40 per cent of the total population, the number of white people at the present time being about 30,000.² Until 20 years ago the number of white

¹ Prepared by Floy Tracy, superintendent of public schools, Douglas, Alaska.

² Report of Gov. Riggs, 1918, p. 10.

children in Alaska was so small in comparison with the number of native children that for the most part their education was identical with that of the native children. Even to this day, in the 85 native schools of Alaska, there are 390 children of mixed blood and 12 white children. This study therefore will of necessity treat of the education of the native children of Alaska in so far as the education of both native and white children was and is identical, although its main purpose will be to set forth the facts in the development of the public education of Alaska's white children.

B. RUSSIAN SCHOOLS.

The immigration of white settlers into Alaska began soon after the discovery and exploration of the country, in 1741, by the Russian adventurer, Behring. From that time until 1867, when Alaska was officially transferred from Russia to the United States, the white population was made up principally of Russian traders and their families and Russian priests of the Greek Catholic Church and their families. These Russian priests had, and still have, a very important part in the education of the Territory. At the time of the transfer, they were maintaining several school in Alaska, five of these—two lower, two higher, and one theological school—being located at Sitka, at that time the capital of Alaska.

These schools were supported by the Russian Government. Indeed, until 20 years after the transfer, the Russian Government expended more money annually for the schools of Alaska than America itself. In that year, 1887, Gov. A. P. Swineford, in his report to the President of the United States, alleged that the 17 Russian schools were receiving from the Russian Government \$20,000, whereas the 15 United States schools were receiving from the Government at Washington, D. C., only \$15,000.

The principal Russian schools at that time were situated at Sitka (57 pupils), at Kodiak (22 pupils), at Kenai (15 pupils), at Nushagak (8 pupils), at St. Michaels (7 pupils), at Unalaska (59 pupils), at Unga (30 pupils), and at Belkovsky (25 pupils).

In 1894, the number of Russian schools had been reduced to 6, and in 1896, according to Gov. Sheakley's report, there were 8 such schools. Three or four of these Russian parochial schools are still existing in Alaska. These schools ministered principally to the Indians of their respective communities, but they were also of great benefit to the Russian white children of the Territory. After the transfer these schools taught English as well as Russian, the teachers often speaking very pure English. One of the most noted of these Russian families of priests was the Kashevaroff family, consisting of

five priests, two of whom are now conducting Greek churches at Kodiak and Juneau, respectively.

C. FIRST SCHOOLS FOR AMERICAN WHITE CHILDREN.

When Alaska became a possession of the United States, in 1867, it was first placed under military rule. It was then too remote from the Government at Washington to receive much attention of any kind, especially with respect to schools. The white settlers were but a handful, and the natives were considered "too unsavory to be touched." Accordingly, the white people at the capital, Sitka, which had in 1867 a total population of 5,000, took matters into their own hands, organized a city government, elected two school trustees, and made the mayor ex officio chairman of the school board. This school board immediately bought a building for \$300 and established a school. The school and town passed through a rather precarious 10 years, but both finally died in 1877.

This school for white children is the first of which we have any definite record, although two others are known to have existed at the same time on two of the Pribilof Islands, St. Paul Island and St. George Island, respectively, under the jurisdiction of the Alaska Commercial Co.

D. PRESBYTERIAN MISSION SCHOOLS.

In 1878, the board of home missions of the Presbyterian Church sent a missionary to Sitka. He at once established a school for Indian children, and through his influence, Miss Pauline Cohen, an American girl living at Sitka, was prevailed upon to conduct a school for white children, her salary being raised by subscription. For one year all the white children of school age at Sitka attended Miss Cohen's school, even those of the Greek Church, who were permitted, however, to receive religious instruction from the priest one hour a day. In 1879, Mr. A. E. Austin, of New York, took charge of this school, and in the next year his younger daughter helped him.

The Presbyterian board of home missions soon extended its work among the Indians by establishing four day schools and two industrial schools, one of the latter at Sitka and the other at Wrangell. The authorities at Washington, D. C., then recognized the worth of these schools by granting them Government aid. The Sitka Industrial School, which finally absorbed the Wrangell school, is still pursuing its eminently useful work at an annual cost of \$35,000 to the Presbyterian Church, the United States Government having dropped its support in 1894. The school now has 150 pupils and 10 teachers.

MISSION SCHOOLS OF OTHER DENOMINATIONS.

Other denominations have at different times conducted schools in Alaska. Gov. A. P. Swineford in 1888 reported the number of these schools, excluding the 17 Russian schools, as follows:

1 Presbyterian Training School at Sitka.¹

1 Friends' school at Douglas.¹

3 Catholic schools.

2 Episcopalian schools.²

3 Moravian schools.

2 Swedish Lutheran schools.

Total number, 12.

In 1892 Gov. Knapp recognized the great work of these missionaries when he recommended to the President that these schools receive aid from the United States Government, stating:

Shall a little sentiment, or a pet theory not applicable here, prevent our encouraging these noble agencies for the accomplishment of the very work we, as a Nation, desire to accomplish, and which there is no hope of our doing ourselves? I do not hesitate to assert that the best educational work which has yet been done in Alaska has been done through these mission agencies.

This recommendation evidently found favor with the Government, for Gov. Sheakley in 1894 reported that the Government had that year given aid to 15 mission schools. However, this practice was unfortunately discontinued soon afterwards.

At the present time the Roman Catholic parochial schools are the principal remaining mission schools in Alaska. St. Ann's parochial schools at Juneau and Douglas are the largest of these, that in Juneau having an attendance in 1917 of about 60, while that in Douglas had an attendance in 1917 of about 45 pupils.

E. SCHOOLS MAINTAINED BY THE UNITED STATES GOVERNMENT.

In 1884, on May 17, Congress passed the first law with reference to education in Alaska. Section 13 of this "Organic Act," as it was called, provides:

That the Secretary of the Interior shall make needful and proper provision for the education of children of school age in the Territory of Alaska without reference to race until such time as permanent provision shall be made for the same, and the sum of \$25,000, or so much thereof as may be necessary, is hereby appropriated for this purpose.

A year later (Mar. 3, 1885) the execution of this act was committed to the Bureau of Education at Washington. The Secretary of the Interior, Hon. L. Q. C. Lamar, appointed Rev. Sheldon Jack-

¹Partly supported by the Government.

²In 1896 four Episcopalian schools in Alaska were placed in charge of Dr. Peter Trimble Rowe, who is now bishop of the Episcopal Church in Alaska.

son, of the Presbyterian board of home missions, the general agent of education for the Territory, a position which Rev. Mr. Jackson held until 1907. Mr. Jackson, during the summers, also established much-needed schools at Juneau, Sitka, Wrangell, Killisnoo, Hoonah, Haines, and Unalaska. He also sent teachers to several more remote places, even to an Eskimo village on the Kuskokwim River, 150 miles above its mouth at Bering Sea. As yet the white population numbered but 1,900 in all, and lived principally in southeastern Alaska. White children at this time attended the Government schools at Sitka, Juneau, Wrangell, and Killisnoo, but the majority of the children taught were Indians.

In 1886, Gov. Swineford lamented the fact that, although there were now 2,000 children of civilized parentage in Alaska, the appropriation by Congress of \$25,000 for their education had been reduced to \$15,000. The Indians, he complained, were, on the contrary, receiving not only the major part of this \$15,000, but \$20,000 besides for their industrial schools at Sitka and Wrangell. Up to this time Congress had appropriated \$75,000 for these two industrial schools, and but \$65,000 for schools without reference to race.

There was at this time no legislative assembly in the Territory, and the people of Alaska did not even have a representative in Congress, so that the written report of the governor was practically the only medium through which the needs of the Territory could be presented to the National Government. It is not to be wondered at, then, that the national legislators, none of whom had ever visited Alaska or had any means of studying authentic descriptions of it, for there were none, should have taken so little interest in the few hundred white children of the northland who were growing up in ignorance.

However, in 1887, through the influence of Gov. Swineford, a Territorial board of education was appointed by the Secretary of the Interior, consisting of the governor, the judge of the United States District Court, and the general agent. This board was to carry out the orders of the Commissioner of Education.

In 1891, however, the management was again changed to Washington, D. C. After that, the general agent made one trip a year to Alaska, usually visiting the most conveniently located schools only, for there was not money enough to provide for the more difficult traveling.

In 1889 there were two schools exclusively for white children in Alaska, one at Juneau and one at Sitka. Two years later another was established at Douglas. That year Gov. Knapp complained that, although Alaska had a school population of 10,000, schools were provided for but 500.

F. SCHOOLS MAINTAINED BY INCORPORATED TOWNS.

As the white population steadily grew, one or two new schools were established each year. That the number of schools was never adequate, however, is evidenced by the fact that each governor kept pleading with Congress every year for larger appropriations.

In 1898, for instance, the second year of "movement and stir and push," following the discovery of gold at the Klondike, there were 9,000 more white people in the district than the year before, and the school appropriation was still only \$30,000. Skagway, a city at the entrance to the White Pass, the most popular route to the Yukon River, had 116 school children and no school. Dyea, another mushroom town, was without a school. Juneau, Douglas, and Wrangell were demanding extra teachers, but there was no money.

Finally, in 1899, Gov. Brady suggested a remedy. He urged Congress to grant to communities the power of incorporating town governments which could levy taxes and support their own schools. He also advocated that each incorporated town be allowed a certain amount of the license money from the sale of intoxicating liquors to spend upon its schools.

The next year Gov. Brady's suggestion was followed out. Section 28 of Document 137 of the second session of the Fifty-fifth Congress reads:

The Secretary of the Interior shall make needful and proper provisions and regulations for the education of the children of school age in the District of Alaska, without reference to race, and their compulsory attendance at school until such time as permanent provision shall be made for the same.

This law allowed communities to incorporate as towns and to use one-half of their liquor-license money for school purposes under the direction of a school board of three members.

Thus was instituted in Alaska the dependence of her schools upon the liquor business. It was, for the time being, at least, a remedy for the school situation in the crowded communities, since Juneau, for example, could in this way obtain \$15,000 for her schools.

Not long afterwards the incorporated towns were empowered to use all their liquor-license money for schools and to levy a school tax on property as high as 2 per cent. In 1901, under the incorporated-town law, Juneau, Skagway, Ketchikan, and Treadwell took charge of their own schools.

The schools for Indians within the limits of incorporated towns, as well as those outside these limits, remain to this day under the jurisdiction of the Commissioner of Education at Washington, who has appointed one superintendent and five district superintendents to take charge of them. Mr. W. T. Lopp, with headquarters at Seattle,

Wash., has been superintendent of these United States Government schools since 1910. (See Bureau of Education Bulletin, 1916, No. 47.)

The progress of the incorporated town schools for white children has been remarkable. In 1903, three years after the passage of the law, 9 such schools had been established. In 1904 the act providing for incorporated towns was amended to include among the communities which might incorporate those having a population of 300 or more. In 1908 there were 11 incorporated town schools, 13 in 1910, 14 in 1916, with 3 in incorporated school districts.

The status of these schools and of other educational activities is shown by the following quotations from the report of Gov. Riggs, 1918, pp. 75-79:

There are 15 schools in incorporated towns and 3 in incorporated school districts, supported in part by territorial appropriation. The averages for the 18 schools, as shown by the table of statistics, is as follows: Average number of teachers, 4.8, with average yearly salary of \$1,205.28 per teacher; average enrollment, 120; average daily attendance, 94.2; average cost of maintenance, exclusive of teachers' salaries, \$3,777.82. The average cost per pupil was \$80.14, as compared with \$76.84 for the previous year.

Statistics of white schools for the school year 1917-18.

Location.	Number of teachers.	Total enrollment.	Average daily attendance.	Term (mos.).	Grade school graduates.	High school graduates.	Expenditures.		
							Salaries of teachers.	All other.	Total.
<i>In incorporated towns.</i>									
Cordova.....	4	106	71.70	9	4	-----	\$5,220.00	\$7,669.59	\$12,889.59
Douglas.....	9	206	171.40	9	12	4	9,005.04	4,172.65	13,177.69
Kagig.....	1	11	8.81	7	1	-----	840.00	408.75	1,248.75
Fairbanks.....	8	206	181.60	9	19	7	15,189.75	5,640.10	20,829.85
Haines.....	2	46	31.00	9	2	-----	1,800.00	518.28	2,318.28
Iditarod.....	1	8	8.00	9	-----	-----	1,350.00	380.78	1,730.78
Juneau.....	14	348	271.28	9	21	13	16,490.00	7,744.24	24,234.24
Ketchikan.....	9	254	194.70	9	13	2	10,665.00	4,663.47	15,328.47
Nome.....	6	127	92.90	9	5	1	8,775.00	4,429.97	13,204.97
Petersburg.....	4	91	71.92	9	4	-----	8,915.00	2,922.75	6,837.75
Seward.....	4	108	84.00	9	5	-----	4,725.00	2,416.45	7,141.45
Skagway.....	5	122	96.30	10	-----	-----	4,005.00	4,264.00	8,269.00
Tanana.....	1	17	14.00	9	-----	-----	1,900.00	584.22	2,364.22
Vaides.....	5	101	64.00	10	3	2	4,350.00	4,273.35	9,223.35
Wrangell.....	4	102	79.20	9	4	-----	3,780.00	1,605.85	5,385.85
Total.....	77	1,347	1,440.81	-----	93	29	92,509.79	51,704.45	144,214.22
<i>In incorporated school districts.</i>									
Anchorage.....	8	274	219.6	9	14	-----	10,332.50	12,064.82	22,387.32
Nenana.....	1	28	27.1	8	3	-----	1,415.00	3,994.09	5,409.09
Talkeetna.....	1	8	8.0	6	2	-----	600.00	247.43	847.43
Total.....	10	310	254.7	-----	19	-----	12,347.50	16,296.34	28,643.84
Grand total.....	87	2,157	1,685.51	-----	112	29	104,857.49	68,000.79	172,858.08

CITIZENSHIP NIGHT SCHOOLS.

Night schools had been organized in two of the cities of Alaska prior to the 1917-18 school year. The passage of the citizenship night-school law as contained in chapter 88, 1917 session laws, and the appropriation of \$5,000 for

carrying out its provisions during the period ending March 31, 1919, however, gave a new impetus to this branch of educational activity. Six communities organized under its provisions and received Territorial appropriations amounting in all to \$2,918.81. In addition to undertaking work of the scope permitted under the law referred to, several communities conducted night schools, which offered a greater variety of subjects and which attracted a larger enrollment than would have been possible with the limited amount of money available from the Territory. In all, seven schools were organized. No reports are available from one, so that general statistics appearing below cover but five citizenship night schools and six general night schools.

Citizenship night schools.

School.	Enrollment.		Average attendance.		Sessions weekly.	Number weeks.	Expenditures.
	Men.	Women.	Men.	Women.			
Anchorage.....	100	50	50	25	5	24	\$1,246.98
Douglas.....	6	19	5	11	2	24	375.00
Juneau.....	20	11	8	5	3	20	375.00
Ketchikan.....	27	17	11	10	2	15	397.00
Nenana.....	46	3	39	3	5	16	480.00
Nome (no report).....	.....	.....	.....	.....	.....	.....	400.00
Total.....	199	100	113	54	.....	.....	3,277.56

The difference between the total expenditure, \$3,277.56, and the amount received from the Territory, \$2,918.81, represents money collected from tuition fees, etc., for the support of these schools.

Different subjects offered: Reading, writing, spelling, arithmetic, English, United States history, United States civics, public speaking.

Different nationalities (24) represented: American, Alaska native, Austrian, Bohemian, Bulgarian, Canadian, Danish, Dutch, Finnish, French, German, Greek, Irish, Italian, Japanese, Mexican, Montenegrin, Negro, Norwegian, Russian, Scotch, Serbian, Swedish, Swiss.

General night schools, including citizenship night schools.

School.	Enrollment.		Average attendance.		Sessions weekly.	Number weeks.	Expenditures.
	Men.	Women.	Men.	Women.			
Anchorage.....	150	83	100	50	5	35	\$1,741.90
Cordova.....	20	.....	19	5	5	19	350.00
Douglas.....	10	58	8	50	2	24	577.75
Juneau.....	24	33	11	23	3	20	787.41
Ketchikan.....	22	17	11	10	2	15	397.00
Nenana.....	46	3	39	3	5	16	480.00
Nome (no report).....	.....	.....	.....	.....	.....	.....	400.00
Total.....	252	214	169	155	.....	.....	4,734.06

Nationalities represented, the same as above.

Subjects the same as above with the addition of French, Spanish, shorthand, typewriting, business English, and mineralogy.

G. THE NELSON SCHOOLS.

Until 1905 the children of white or mixed blood outside of incorporated towns were compelled to attend the United States schools,

without reference to race, which had been provided for 20 years before, and which were attended chiefly by Indians. But on January 27, 1905, Congress passed what is known as the Nelson bill, providing for the establishment of a school exclusively for children of white or mixed blood in any community applying for it which had at least 20 such children of school age. The governor was made ex officio superintendent of these so-called Nelson schools, and they were to be supported by 25 per cent of the tax money collected outside of incorporated towns by the United States Government.

This law has proved a boon to many communities in Alaska, although each year until 1917 the governor has without avail sought to have the minimum number of children required for the establishment of a Nelson school reduced from 20 to 15.

Following is a table giving all the available statistics regarding the progress of these Nelson schools:

Statistics of the Nelson schools.

Date.	Number of Nelson schools.	Number of teachers.	Number of pupils.	Total cost of maintenance.
1907.....	10	.....	488	\$19,980.00
1908.....	17	.....	672	35,116.00
1909.....	21	.....	684	40,782.00
1910.....	21	.....	601	36,486.00
1911.....	22	.....	.....	.....
1912.....	.....	.....	.....	50,000.00
1913.....	26	37	943	.....
1914.....	27	38	941	.....
1915.....	31	41	961	63,653.58
1916.....	37	50	1,470	75,241.49
1918.....	46	58	1,180	100,046.84

ALASKA AGRICULTURAL COLLEGE AND SCHOOL OF MINES.¹

Chapter 34 of the session laws of 1917 provides for the acceptance of grants of land and money for the Alaska Agricultural College and School of Mines in accordance with the provision of the acts of Congress approved August 30, 1890, and March 4, 1915. Under chapter 62 of the session laws of 1917, providing for the establishment of such college, the sum of \$80,000 is appropriated for construction of buildings and the purchase of equipment. The building, on a site near Fairbanks, set aside for the purpose by Congress, is well under way.

H. NATIONAL LEGISLATION IN 1917 REGARDING THE WHITE SCHOOLS.

Alaska was without a representative in Congress until 1906, when her first Delegate was elected. From that time on, the needs of Alaska have been set forth before the National Government more forcefully than ever before. Although the Delegate has no vote, he has a right to speak in the House of Representatives, is a member of various committees, and can bring the affairs of Alaska to the attention of the various officials at the capital in person.

¹ From the report of Gov. Riggs, 1918.

It was not until Congress authorized the building of a Government-owned railroad in Alaska from Anchorage to Fairbanks in March, 1917, that the people of Washington could be made to take much interest in Alaskan affairs. The beginning of the European war in the same year, too, and the opening of the Panama Exposition at San Francisco in 1915, caused thousands of American tourists to visit Alaska, and thus made reference to Alaska on the floor of Congress more frequent and intelligible.

The first national legislation directly influencing Alaskan schools for white children was passed in 1917. The reader will recall that the schools of Alaska, and especially those of incorporated towns depended for their support largely upon the liquor traffic license money. In November, 1916, the people of Alaska by referendum voted in favor of Territorial prohibition. It had been the intention of the members of the second session of the Territorial legislature who provided for this referendum vote that, in the event of a victory for prohibition, a law restricting the sale of intoxicating liquor should be framed by the next legislature to go into effect on January 1, 1918. Social workers of various organizations, however, realized how precarious the passage of such a bill would be so long as the legislature had as little power for making up the deficit in school money as it then had. Accordingly, largely through their efforts a "bone-dry" law was passed by Congress on the last day of its sixty-fourth session, March 3, 1917. The news of the passage of this bill was at first received with indifference even by the prohibitionists of Alaska, and with disgust by the people of incorporated towns, the newspapers of which attacked its advocates very bitterly. But these feelings were soon changed to patriotic rejoicing when it was learned that Congress had also granted to the Territory the right to control her own schools for white and native children, and to use Territorial funds for their support. This latter provision at once gave to Alaska about \$300,000 to spend upon her schools.

I. TERRITORIAL LEGISLATION REGARDING SCHOOLS FOR WHITE CHILDREN.

On March 4, 1913, the first Territorial legislature convened in Juneau, the capital. This body was composed of two houses, the house of representatives with four members from each of the four judicial divisions of Alaska, and the senate with two members from each of these judicial divisions. Its powers were very limited, but it passed many necessary and progressive laws, 84 in all, the most notable of which was the granting of the suffrage to women.

This legislature did two noteworthy things for education. One was to pass a law compelling children between the ages of 8 and 16, living outside of incorporated towns, and within 2 miles of a school,

to attend that school. Although this law was not enforced, because there was no appropriation made by Congress for truant officers, it at least established a good precedent for future legislation. The other noteworthy act was to memorialize Congress for a board of education, a board of examiners, and two school superintendents for the white schools of the Territory.

That same year Gov. J. F. A. Strong recommended an appropriation by Congress for the working out of a uniform school system, with uniform textbooks and a uniform course of study. This recommendation Gov. Strong repeated each year until 1917.

At the second session of the Alaska Legislature a bill for a uniform school system was actually framed and passed. This bill made provision for an appointive school board of three members, namely, the governor (ex officio president and superintendent of public instruction), the Territorial treasurer, and the assistant superintendent of public instruction, who was to be at first appointed by the governor, but later elected every four years. The assistant superintendent, who was to have charge of instituting and administering a uniform school system, was to be a citizen of the United States, a graduate of a State normal school, a graduate of a standard college or university, and a teacher of at least five years' experience. He was to receive a salary of \$3,000 annually and a maximum of \$2,000 for traveling expenses.

The legislature of 1915 passed one other important school law. This was a bill making it possible for Nelson schools to be established in communities having but 10 children of school age instead of 20, as required in the original Nelson bill of 1905.

Both these bills, however, when transmitted to Congress, were accounted to be out of the scope of power granted to the legislature in 1912 (Public Act 334) and were therefore void and of no effect.

The third session of the legislature in 1917 was held immediately after the passing by Congress of the "bone-dry law" for Alaska and of the law granting the Territory both money and power for school legislation. It was therefore with great interest that the people awaited its acts relating to schools. Nor were they disappointed in their expectations. The senate and the house of representatives, as soon as their organization had been accomplished, appointed a joint committee on education consisting of five representatives and two senators. It was unanimously agreed that a uniform school bill must be passed and that some provision must be made for replacing in incorporated towns the school revenue to be lost through prohibition.

There were many other important school questions to be settled. The Nelson school bill must be changed in effect so that communities having fewer than 20 school children might establish schools. This question was decided by House bill No. 84. This bill reads:

The clerk of the district court shall have the power, and it shall be his duty, in the division to which he is appointed and in which he resides, upon petition as hereinafter specified, to establish by order in writing a school district at any camp, village, or settlement outside of the limits of any incorporated town, but such school district shall not embrace more than 40 square miles of territory, nor contain less than 10 resident white children between the ages of 6 and 20 years.

And further that—

The qualified voters of said school district shall choose by a plurality vote a school board of three members who shall have the power to build or rent the necessary schoolhouse or schoolrooms, to equip the same with the necessary furniture and fixtures, to provide fuel and light, to hire and employ teachers, and in general to do and perform everything that may be necessary for the maintenance of the public school. The members of said board shall hold office for the term of one year and until their successors are elected and qualified. An annual election shall be held each year, after the first election, for the election of members of said board.

The bill also provides more money for school buildings than the original Nelson bill. Quoting from Gov. Strong's report of 1916, the inadequacy of this former fund is clearly set forth:

As a matter of fact, while the teachers employed are without doubt far superior to the school teachers of 25 or 50 years ago, the schoolhouses and grounds are no better, and in some cases not so good as those found a half century ago in many of the States of the Union. The cost of construction and equipment of schoolhouses in rural communities is limited to \$1,000, a sum so manifestly inadequate that comment would seem to be superfluous. The demand for funds to maintain the schools already established has so increased that the strictest economy must be practiced in order to maintain schools in all of the organized districts. Therefore, the school buildings are inferior and lack almost every modern appliance and comfort, except desks and seats. The school grounds are for the most part unsightly and repelling instead of being inviting and attractive, although as a rule the teachers do the best with the limited means at their command to make their surroundings as pleasant as possible.

This condition is met by the following provision in House bill No. 84:

The governor shall assign and set apart to each school district established and organized under the provisions of this section a sum not less than \$300 nor more than \$1,800, in proportion to the number of pupils in the district, for the construction and equipment of a schoolhouse, which sum shall be paid by the Secretary of the Treasury to the treasurer of the school district, upon the order and voucher of the governor, out of that portion of said Alaska fund set apart for the establishment and maintenance of public schools.

A second important school bill was House bill No. 35, framed and introduced by the joint committee on education. This bill was framed especially to meet the peculiar situation in Anchorage. Anchorage is a new town which has grown up since the choice of that point on Cook Inlet in 1915 as the terminal from which to begin work on the Government railroad opening up the Matanuska coal

fields. This town, the site of which is owned by the Government, is under the administration of the Alaska Engineering Commission. The commission has constructed an ideal municipality with graded streets, sidewalks, telephone lines, water service, Federal jail, and post office. A school for whites, under the Nelson system, has been built there, seating 150 pupils and having in 1916 four teachers. But the town is steadily growing, and the school needs are much larger than the Nelson school system can fulfill. Since the town by its nature can not be incorporated, it was incumbent upon the legislature of 1917 to devise some means of establishing a better school at Anchorage. House bill No. 35 therefore makes provision—

That any town, village, or settlement in the Territory of Alaska outside of the limits of any incorporated town, having a population of 100 or more and 80 children between the ages of 6 and 20 years, may incorporate as a school district in the manner hereinafter provided, but such school district shall not embrace more than 40 square miles of territory.

That each school district organized under the provisions of this chapter shall have a board of directors of five members to be elected as hereinafter provided, who shall have the exclusive management and control of all school matters in the school district subject to such general laws governing the grading and superintendency of schools as may be now or hereafter enacted by the Territorial legislature.

That said boards of directors shall have the power to levy and collect taxes upon all real and personal property within the limits of their respective districts not exempt therefrom by existing law, not to exceed 1 per cent of the assessed value of such property in any one year and all moneys collected by such taxation shall be expended in payment of the cost of levying and collecting such taxes, in payment of the cost of conducting school elections, and for the construction and maintenance of schools only.

Section 13 of the act also states that "an emergency is hereby declared to exist, and this act shall be in effect from and after its passage and approval."

But the educational bill in which the people of the Territory felt most interest was that intended to furnish a substitute to the schools of incorporated towns for the revenue previously derived from saloon licenses. Two such bills were introduced in the house of representatives, and the other the "75 per cent" bill. The first of these, the so-called "fifty-fifty" bill, proposed to give to incorporated towns one-half of the money needed to meet their expense budget for the ensuing year. The other, the "75 per cent" bill, proposed to grant to incorporated towns three-fourths of the money needed to maintain their schools during the preceding year. Both bills included a clause making \$15,000 the maximum amount to be granted to any one school. After many weeks of debate and intense activity on the part of champions and opponents alike, near the close of the session the "fifty-fifty" bill, now changed to a sixty-forty compromise bill, was passed. The senate then amended it to grant

to incorporated towns not 60 per cent but 75 per cent of their school maintenance funds. The house concurred in this amendment and the bill was signed by the governor, causing, of course, great rejoicing in all incorporated towns.

The Territorial money available for the maintenance of these schools and the Nelson schools for the next fiscal year will be as follows:

Twenty-five per cent of the Alaska fund, which comprises "all moneys derived by the Federal Government from business and trade licenses outside of incorporated towns and which are passed to the credit of the Treasurer of the United States." This money was appropriated by Congress in 1913 for the maintenance of white schools outside of incorporated towns, and in 1916 amounted approximately to \$82,500.

Twenty-five per cent of the Territory's 25 per cent of receipts from the National Forests in Alaska, in accordance with act of Congress, June 30, 1906, amended March 4, 1907, and May 23, 1908, respectively, which appropriates this money for the benefit of public schools and public roads. For the year ending December 31, 1916, this fund amounted to \$21,851.75.

About \$240,000 was derived from the Territorial Revenue Act passed by the Alaska Legislature, 1915, which imposes a graduated schedule of taxation upon fisheries and upon cold-storage fish plants.

Last of all was passed the educational bill, constituting the uniform school law, of which the Territory had most need in order to reach the standard set by other progressive States and countries. This law has produced a marked change in the status of the white schools of Alaska.

Before this time the governor of Alaska was the ex officio superintendent of public instruction, but because of his manifold duties, he had far too little time to devote to the schools. Under Gov. Strong excellent results were obtained in the compiling of statistics of white schools and in the spreading of information and creation of public opinion which brought about the progressive legislation of 1917. Gov. Strong instituted the issuing of two-year certificates to teach in Alaska to all teachers actively engaged in teaching in the Territory, upon presentation of such certificates, diplomas, or other credentials as would properly qualify them for such a permit.

Until 1917, however, "there was no supervision of schools and there were no courses of study in the rural schools with any degree of uniformity. Lacking systematic inspection, there was no cooperation among the schools." There were no teachers' organizations, and the only school publications were High School Annuals published by such schools as Juneau and Douglas. The courses of study were not standardized, and they, as well as the textbooks, were

changed with the advent of every new teacher, who chose both course of study and text books from those he or she was most familiar with, usually those of Washington, Oregon, or California. Offsetting these disadvantages, however, is the fact that—

The vast majority of the teachers in Alaska have two qualifications which make for successful school work in this country where direct supervision of schools is necessarily limited—these are professional training and experience. Two-thirds of the teachers of Alaska are normal school or college graduates; 88 per cent of the high-school teachers are college graduates who have in addition had advance study. The average teaching experience of Alaska teachers is seven and one-half years, exclusive of the school year for which the report is made.

Commendable work has therefore been accomplished even under trying circumstances. This is true of incorporated towns especially. The following quotation from Gov. Strong's report of 1916 well summarizes the progress made:

The graded schools maintained in incorporated communities are doing good work under efficient superintendents, and with excellent courses of study. Graduates of some of the high schools of Alaska are matriculated at the University of Washington, located at Seattle, without examination, and each year there is a substantial enrollment of students from Alaska. Graded schools are maintained in 14 incorporated towns of the Territory, and in 9 of these towns high schools are established.

In April, 1916, the high schools of Douglas and Juneau were accredited by the University of Washington after an inspection tour by Dr. F. W. Meisnest, of the university, who pronounced them on a par with the accredited high schools of corresponding size in the State of Washington. In these incorporated town schools, many of the most progressive theories of education have been worked out to successful conclusions. For instance, in Douglas, during the year 1916-17, the following projects have been successfully carried on:

The Six and Six Plan, whereby a junior high school consisting of the seventh and eighth grades has been established, making the break between grade and high school at the end of the sixth year, and giving these pupils the advantage of the departmental plan.

Manual training and domestic science in high school.

A school library conducted by high-school pupil librarians.

A high-school annual paper, with 75 pages of reading matter and 15 photographs.

A high-school dramatic club which produced the first pageant in Alaska, and earned for the school last year about \$350.

A high-school orchestra.

Interscholastic debating.

High-school athletics, with several interclass and interschool athletic teams.

The application of Thompson's minimum essential tests.

Music, drawing, physical culture, manual arts, and gardening throughout the grades.

Medical and dental inspection.

A parent-teacher association of over 100 members, which purchased a \$200 victrola, a set of dishes, and Indian clubs and dumb bells for the school.

It is evident, however, that the schools of the incorporated towns as well as those of the Nelson system suffered from lack of cooperation and systematization. As remedying these grave defects the importance of the uniform school act of 1917, described above, can not be overestimated. As finally adopted, this act provided for a Territorial board of education to consist of four elected members, namely, one senator from each judicial division, and the governor, who should be ex officio president of the board. The first board, however, was elected by the legislature from the members of the senate then in session, and the school board which is now in office and will be until the next session in 1919 is composed of the following members:

Gov. Thomas Riggs, Jr., ex officio president.

Hon. O. P. Hubbard, of Valdez, president of senate, 1915.

Hon. James Robert Heckman, of Ketchikan.

Hon. O. P. Gaustad, of Fairbanks.

Hon. F. A. T. Aldrich, of Nome.

The act further provides for the appointment by the school board of a Territorial commissioner of education, at a salary of not more than \$3,600 per annum, who shall have an office in Juneau with an allowance of not more than \$2,000 per annum for clerical help and office expenses. He is to be chosen upon merit, and the only limitation put upon his qualifications is that he shall be a citizen of the United States. A maximum sum is appropriated for his traveling expenses also, and three months' leave of absence from the Territory is granted him each year for the purpose of study and attendance upon educational conventions. The commissioner's duties as set forth in the act include: The supervision of all matters pertaining to the public schools of the Territory of Alaska, to include all schools both within and without incorporated towns; the obtaining of annual reports from the president, superintendent, or principal of all public educational institutions and private schools; the keeping in his office of records, books, and papers pertaining to the educational interests of the Territory; the preparing of a minimum course of study and a uniform textbook system for the public schools of the Territory; the publishing and distributing to school boards of the Territory bulletins or pamphlets relating to educational work; the prescribing of rules and regulations for the government of the public schools, including rules of attendance, punctuality, truancy, etc.; the examining of schools throughout the Territory, and accrediting of those reaching a certain standard; and the examining of and granting of certificates to applicants desiring to teach in Alaska.

Immediately after the close of the session of the legislature, on May 4, 1917, the Territorial school board met, organized, and considered applications for the position of Territorial commissioner of education. Mr. L. D. Henderson, then superintendent of schools at Juneau, was chosen to be the first Territorial commissioner. He has already established an office in Juneau, and has begun the arduous task of standardizing the white schools of Alaska.

CONCLUSION.

It will be seen that the public schools for the white children of Alaska had to pass through three distinct phases: First, they had to be separated from the influence of religious denominations, in 1894. Secondly, they had to be distinguished from schools for Indian children in 1900 and in 1905. Lastly, they had to be brought out of the jurisdiction of a remote and apathetic National Congress into the control of the people of Alaska themselves. Now that this last step has been attained, it is hoped that the white schools of Alaska rank among the most progressive schools in the world.

INDEX.

- Academic freedom of speech, 29-34.
Accrediting and examining boards, non-State, 9.
Africa, agricultural education, 313-314.
Agricultural and mechanical colleges, activities, 326-334; criticism, 35-36; growth and administration, 18-21.
Agricultural education, general review, 297-334.
Akron, Ohio, school survey, 468.
Alabama, educational survey, 440.
Alaska, education, 733-751.
Allaben, M. C., Educational work of the Presbyterian Church in the United States, 582-590.
Alton, Ill., school survey, 471-472.
American Association for the Advancement of Agricultural Teaching, meeting, 310-312.
American Association for the Advancement of Science, and agricultural education, 305-306.
American Association of University Instructors in Accounting, establishment, 22.
American Library Association, war service, 528-530.
Americanization work, 37-38, 117-120, 519-521.
Arizona, school survey, 441-442.
Army, educational system, 495-497; educational work of Y. M. C. A., 617-643; reserve officers' training camps, 495-497.
Art, instruction, 227-255.
Art museums and art schools, 248-253.
Association of American Agricultural Colleges and Experiment Stations, administration, 19-21; meeting, 308-309.
Association of American Colleges, and college efficiency, 12-13.
Association of American Universities, report on graduate work, 13-14.
Association of Colleges and Preparatory Schools of the Middle States and Maryland, membership, 10.
Association of Colleges and Secondary Schools of the Southern States, membership, 10.
Atypical children, special classes, 518-519.
Baptist Church, North, educational work, 578-580.
Barclay, Lorne W., Educational work of Boy Scouts, 663-676.
Bawden, William T., Vocational education, 206-206.
Bishop, F. L., Engineering education, 97-103.
Bloomington, Ind., school survey, 466-468.
Boston, Mass., school survey, 440-451.
Boy Scouts, educational work, 663-676.
Briggs, Thomas H., Secondary education, 185-226.
Brookline, Mass., school survey, 461-462.
Brown, B. W., Education under religious auspices, 553-561.
Buchner, Edward F., Educational surveys, 437-490.
Bureau of Education, appropriations for, 500-501; publications on rural schools, 182-183; what it advocates, 733; work in home education, 393-395.
See also Alaska
Business education, curricula, 110-111.
Calvin, Mrs. Henrietta W., Home economics, 355-390.
Cammack, J. W., Southern Baptists and education, 580-582.
Canada, agricultural education, 316-318.
Canal Zone, education, 708-711.
Capen, Samuel P., A survey of higher education, 5-69.
Carnegie Foundation, insurance plan, 27-29.
Certification of teachers, legislation, 512-513.
Child welfare courses, 385.
China, agricultural education, 318-319; medical education, 95-96.
Churches, educational work, 553-603.
City school reports, 474-476.
City school superintendents, powers and duties, 132-134.
City school systems, activities, 115-158.
Claxton, P. P., letter regarding the School Garden Army, 335-336.
College efficiency, 12-13.
College Entrance Examination Board, activities, 9-10.
College entrance requirements, 9-16; medical schools, 73-76.
College of Agriculture and the Mechanic Arts, Porto Rico, 706-707.
Colleges and universities, activities during the war, 35-69; home economics, 368-375, 382-388; religious education. *See* Churches, educational work; standardizing agencies, 9-15; standards for accrediting, 15-16.
See also Higher education; Medical colleges.
Colorado, educational survey, 440-441.
Columbia, S. C., school survey, 470-471.
Colwell, N. P., Medical education, 71-96.
Commercial education, 105-113; surveys, 479.
Community organization in schoolhouses, legislation, 522-523.
Compulsory school attendance, legislation, 514-515.
Connecticut, town school survey, 448-449.
Consolidation of schools, 168-171; legislation, 507-508.
Continuation schools, 286-290.
Council of National Defense, activities, 501; university committee of advisory commission, 41-43; work, 501.
County administration and supervision, legislation, 505-507.

- Courses of study, art, 232-243; business education, 110-111; food courses in the management of lunch rooms and cafeterias, 377-380; kindergartens, 347-348; outline of war, Fargo, N. Dak., 155-156; public schools of the Philippines, 726-727; religion. *See Churches*, educational work; rural schools, 175-176.
- Cummings, Horace H., Latter-Day Saints' schools, 590-594.
- Daffenbaugh, W. S., Education in the smaller cities, 125-158.
- Denominational schools. *See Churches*, educational work.
- Dental clinics, school children, 413-417.
- Department of Agriculture, educational work, 322-326.
- Department of Labor, educational activities, 498-500.
- Des Moines, Iowa, school survey, 473.
- Duplicate schools, 149-153.
- Educational legislation, higher institutions, 37-38; kindergartens, 353-354; physical education, 417-419; review, 491-528.
- Educational surveys, 437-490; colleges and universities, 22-23; commercial studies, 111-112; home economics, 388; kindergartens, Richmond, Ind.; libraries, 539-547; rural schools, 182; school administration, 135-137. *See also under names of States, cities, towns, etc.*
- Educational terms, definition, 14-15.
- Elementary schools, agricultural education, 302-305.
- Elyria, Ohio, school survey, 468-469.
- Engineering education, 97-103.
- England, schools for mothers, 391-392.
- Eye, hygiene, 413.
- Federal Board for Vocational Education, activities, 273-277; establishment, 493-494; provision for commercial education, 105-109; rehabilitation for disabled soldiers, 494-495.
- Federal Government and education, 492-501. *See also Alaska.*
- Foght, H. W., rural education, 159-183.
- Foreign languages, high schools, 120-121.
- Fort Dodge, Iowa, vocational education survey, 479.
- Framingham, Mass., school survey, 461.
- Francis, J. H., United States School Garden Army, 335-338.
- French, C. H., Financial needs of standard colleges, 12-13.
- Gary, Ind., school survey, 456-460.
- Gary school, discussion, 123-124.
- Georgia, county school survey, 445-446.
- German, elimination in schools, 120-121.
- Girl Scouts, educational work, 677-682.
- Graduate School of Agriculture, work, 332-333.
- Graduate study, report, Association of American Universities, 13-14.
- Grand Rapids, Mich., school survey, 453-454.
- Great Britain, agricultural education, 314-316.
- Harrisburg, Pa., school survey, 460-461.
- Harvard University, Supreme Court of Massachusetts sets aside agreement with Massachusetts Institute of Technology, 23-26.
- Hawaii, education, 712-718.
- Health and sanitation, legislation, 515-517.
- High schools, agricultural education, 207-302; and the colleges, 196-197; art instruction, 232-243; consolidation and coordination, 191-195; effect of war, 216-218; extension of function, 214-216; failures and marks, 197-198; farm service by pupils, 218-222; growth, 196-198; junior, 122; larger use of school plant, 195; legislation, 517-518; libraries, 547-552; military training, 222-225; Negroes, 200-201; pupils, 199-200; retardation, attendance, and elimination, 198-199; rural, growth, 171-173; small, 189-191; supervision and instruction, 209-214; teachers and principals, 201-209. *See also Secondary education.*
- Higher education, legislation, 524-528; Porto Rico, 705-706; review, 5-69; surveys, 479-484. *See also Colleges and universities; Universities.*
- Hogan, W. E., Educational work of the Methodist Episcopal Church South, 573, 578.
- Home economics, instruction, 355-390, 695-697.
- Home education, 391-401.
- Home reading circle, courses, 394-395.
- Hood, William R., Review of educational legislation, 491-528.
- Hygiene, educational, 403-422.
- Illinois, educational survey, 439-440; survey of colleges, 482-483.
- Illiteracy, elimination, 519-521. *See also Americanization work.*
- Indiana, county school survey, 448; vocational education survey, 478-478.
- Industrial education, Philippine Islands, 728-730. *See also Vocational education.*
- Iowa State Teachers' College, survey, 482.
- Janesville, Wis., school survey, 469-470.
- Jeanes industrial teachers, 424-426.
- John, Walton C., A survey of higher education, 5-69.
- Jones, Thomas Jesse, Recent progress in Negro education, 423-436.
- Junior colleges, distribution, 17; standards of accrediting, 17-18; types, 16-17.
- Junior high schools, growth, 122; prevocational education, 289-292.
- "Khaki University." *See Young Men's Christian Association.*
- Kindergarten education, 330-364.
- Kinney, Henry W., Education in Hawaii, 712-718.
- Kohn, W. C., Christian day schools in the Lutheran Church, 561-568.
- Land-grant colleges, comparative statistics, 18-19.
- Lane, C. H., Agricultural education, 297-334.
- Lang, A. R., Education in the Canal Zone, 708-711.
- Latin America, agricultural education, 319-321.
- Latter-Day Saints, schools, 590-594.
- Legislation. *See Educational legislation.*
- Libraries, activities, 527-532; legislation, 523-534; Philippine Islands, school, 730-731.
- Lombard, Ellen C., Home education, 391-401.
- Low, Juliette, Girl Scouts as an educational force, 677-682.
- Lutheran Church, day schools, 561-568.
- Lyford, Carrie A., Home economics, 355-390.
- McCormick, Patrick J., Roman Catholic schools, 504-603.
- Malnutrition, efforts to prevent, 407-408.

- Manual training, secondary schools**, 292-294. *See also* Vocational education.
Marquardt, W. W., The Philippine public-school system, 718-732.
Massachusetts, vocational education, 173-175.
Massachusetts Agricultural College, criticisms, 35-36.
Medical Colleges, entrance requirements, 73-76.
Medical education, review and statistics, 71-96.
Medical supervision of schools, 409.
Methodist Episcopal Church, education, 568-573.
Methodist Episcopal Church South, educational work, 572-578.
Meyer, Henry M., Education in the Methodist Episcopal Church, 568-573.
Military training, and physical education, 421-422; high schools, 222-225; in the schools, 124-125.
Miller, Paul G., Education in Porto Rico, 683.
Missouri, county school survey, 447.
Mormons, educational work, 590-594.
Mount Holly, N. J., school survey, 472-473.
Muscatine, Iowa, school survey, 473.
Music, instruction, 257-268.
National Board of Medical Examiners, activities, 86-87.
National Dairy School, meeting, 309-310.
National Education Association, and agricultural education, 312-313.
National Rural Teachers' Reading Circle, activities, 179-180.
Navy, educational system, 498.
Negroes, education, 423-436; high schools, 200-201; instruction in home economics, 367-368; religious education. *See Churches*, educational work; survey of schools, 484-485.
New England College Entrance Certificate Board, report, 9.
New York, county school survey, 447-448.
Newlands bill, and engineering experimentstations, 37.
Normal schools, State. *See State normal schools*.
North Central Association of Colleges and Secondary Schools, activities, 10; report on standards of accrediting colleges and universities, 15-16.
North Dakota, survey of higher education, 479-480.
Oral hygiene, 413-417.
Orr, William, Educational work of the Young Men's Christian Associations, 605-602.
Padelford, Frank W., Educational work of the Baptist Church, North, 578-580.
Pecchial schools. *See Lutheran Church*, day schools; Roman Catholic Church, schools.
Paterson, N. J., school survey, 473-474.
Patriotism, instruction, 519, 602-603.
Phelps-Stokes Fund, education of Negroes, 429-430.
Philippine Islands, education, 718-732.
Physical examination of school children, legislation, 515-517.
Portland, Oreg., school survey, 406.
Porto Rico, education, 683-707.
Pratt, Waldo S., Instruction in music, 257-268.
Premedical college work, 87-99.
Presbyterian Church in the United States, educational work, 582-590.
Public-school support, legislation, 508-510.
Reading circles, teachers, 179-180.
Reading courses, teachers of Philippine Islands, 703-704.
Religious education, 553-603.
Retardation, high schools, 198-199.
Rhodes scholarships, 26-27.
Richmond, Ind., school survey, 462; survey of kindergartens, 348-351.
Roman Catholic Church, schools, 594-603.
Rosenwald schools, 427-429.
Rural education and life, committees and commissions, 180-182.
Rural schools, 159-183.
St. Louis, Mo., school survey, 454-456.
St. Paul, Minn., school survey, 462-466.
San Francisco, Calif., school survey, 451-453.
Sargent, Walter, Instruction in art in the United States, 227-255.
Saskatchewan, Canada, educational survey, 486.
Schaeffer, N. C., Progress of vocational education in rural communities in Massachusetts under the Smith-Hughes Act, 173-175.
School administration, discussion, 128-127.
School boards, rules and regulations in smaller cities, 128-132.
School district, legislation, 507.
School Garden Army, work, 335-338.
School laws. *See Educational legislation*.
School plant, wider use, 521-523.
School superintendent, powers, and duties in smaller cities, 132-134.
School surveys. *See Educational surveys*.
School term, legislation, 513-514.
Secondary education, 185-226. *See also High schools*.
Secondary schools, State accredited, 10-11.
Sex education, 408-409.
Small, Willard S., Educational hygiene, 403-422.
Smith-Hughes Act, and training of teachers in industrial and agricultural subjects, 37; vocational education, 173-175.
Smith-Lever Act, and home demonstration work, 380-382.
Soldiers, rehabilitation of disabled, 494-495.
South Dakota, educational survey, 23, 442-444.
Southern Baptists, educational work, 580-582.
State accredited secondary schools, 10-11.
State normal schools, home economics, 364-367.
State University of Texas, attack, 36.
Students' Army Training Corps, activities, 59-60, 277-279.
Supervised study, city school systems, 153-154.
Supervision and instruction, high schools, 200-214.
Surveys, school. *See Educational surveys*.
Teachers, certification, 512-513; improvement, 510-512; physical education, 403-406; promotions, city school systems, 138-149; status in rural schools, 178-179; training and welfare, Philippine Islands, 722-726.
Teachers and principals, high schools, 201-209.
Teachers' qualifications, city school systems, 139-149; Porto Rico, 702-704.
Teachers' requirements, 139-90.
Teachers' salaries, city school systems, 138-139; Negro schools in South, 430-431; Philippine Islands, 725; rural schools, 165-166.

- Teaching personnel, improvement, 510-512.
Texas, county school survey, 446-447.
Textbooks, laws, 523.
Thompson, Frank V., Commercial education, 105-113.
True, A. C., on Graduate School of Agriculture, 332-333.

Universities, activities during the war, 38-69; art instruction, 243-248; surveys, 22. *See also Colleges and universities; Higher education.*
University of Arizona, survey, 22-43.
University of Kentucky, survey, 481-482.
University of Nevada, survey, 480-481.
University of Pittsburgh, survey, 483-484.
University of Porto Rico, activities, 705-706.

Van Sickle, J. H., Public education in the cities of the United States, 115-158.
Virgin Islands, education, 711-712.
Vocational education, Army schools, 496-497; Congressional enactments, 492-494; general review, 122-123; Smith-Hughes Act, 173-175; surveys, 476-479.
Wilmington, Del., vocational education survey, 478-479.
Winchester, Almira M., Kindergarten education, 339-354.
Winston-Salem, N. C., school survey, 471.
Wisconsin, educational survey, 444-445.
Wolcott, John D., Library activities, 527-552.
Young Men's Christian Associations, educational work, 605-662.





